

ANIMAL KEEPERS' FORUM



OCTOBER 2009

**The Journal of the American
Association of Zoo Keepers, Inc.**

AKF Managing Editor: Susan D. Chan • **Associate Editors:** Becky Richendollar, North Carolina Zoo • Mark de Denus, Winnipeg, MB • **Enrichment Options Column Coordinator:** Julie Hartell-DeNardo, Oakland Zoo and Ric Kotarsky, Tulsa Zoo & Living Museum • **Legislative/Conservation Outlook Column Co-Coordinator:** Becky Richendollar, North Carolina Zoo and Greg McKinney, Philadelphia, PA • **Reactions Column Coordinator:** William K. Baker, Jr., Abilene Zoo, Abilene, TX • **ATC Column Co-Coordinator:** Angela Binney, Disney's Animal Kingdom; Kim Kezer, Zoo New England; Jay Pratte, Zoo Atlanta • **Conservation Station Co-Coordinator:** Penny Jolly, Greater Orlando AAZK Chapter and Amanda Kamradt, New England AAZK Chapter • **Proofreader:** Barbara Manspeaker, AAZK Administrative Office.

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AAZK Executive Director: Ed Hansen, AAZK, Inc., Topeka KS

also serves as AAZK Liaison to the American Zoo & Aquarium Association (AZA)

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35th Anniversary - 1974 - 2009

MISSION STATEMENT

(Revised April 2009)

American Association of Zoo Keepers, Inc.

The mission of the American Association of Zoo Keepers, Inc. is to advance excellence in the animal keeping profession, foster effective communication beneficial to animal care, support deserving conservation projects, and promote the preservation of our natural resources and animal life.

This month's cover features a painting of a Black Rhino and Calf (Diceros bicornis) by renowned wildlife artist Curt Parker. In the work, a young rhino calf peers out from the safety of her mother's shadow, casting a glance towards an uncertain future. This is the eighth calf born to Mawingo, a wild black rhino born blind and hand-raised by Ian and Jane Craig of the Lewa Wildlife Conservancy. Mawingo's offspring have been released in sanctuaries across the Northern Rangelands Trust in Kenya. From 1970 to 1990, poaching reduced the world's black rhino population from 65,000 to 2,000. In 1990, the American Association of Zoo Keepers, Inc. (AAZK) introduced Bowling for Rhinos Sponsored by Blue Rhino®, an international conservation project that has raised over \$3 million and educated millions of people about the plight of this critically endangered species. The conservation partnership of AAZK and the Lewa Wildlife Conservancy supports a safe haven that is recognized as one of the world's most successful rhino sanctuaries. During the same timespan, the world's black rhino population has recovered to more than 4,000. Each rhino birth is a significant triumph for conservation. Curt Parker's painting, inspired by a photograph from Ed Hansen, celebrates the success of AAZK and Lewa Wildlife Conservancy, and reaffirms our commitment to improving the future for black rhinos and other critically endangered wildlife. The artwork appears on note cards that will be available for AAZK Chapters to purchase as a fundraiser. Please see page 423 of this issue for details on how to be a part of this exciting project. Our thanks to Curt Parker for lending his considerable talents to this effort.

Articles sent to *Animal Keepers' Forum* will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for *AKF*. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 785-273-9149; FAX (785) 273-1980; email is akfeditor@zk.kscoxmail.com< If you have questions about submission guidelines, please contact the Editor.

**Deadline for each regular issue is the 10th of the preceding month.
Dedicated issues may have separate deadline dates and will be noted by the editor.**

Articles printed do not necessarily reflect the opinions of the *AKF* staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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E-Mail Addresses:

You may reach Barbara Manspeaker at AAZK Administrative Offices at: aazkoffice@zk.kscoxmail.com<

You may reach Susan Chan and *Animal Keepers' Forum* at: akfeditor@zk.kscoxmail.com<

Mailing Address:

AAZK, Inc., 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054

**AAZK website Address: www.aazk.org
BFR Website: <http://aazkbfr.org>**

Scoops & Scuttlebutt



Puget Sound AAZK Chapter would like to send out a hearty Thank You to everyone who contributed in any way to the 3rd International Congress on Zoo Keeping and the 36th American Association of Zoo Keepers National Conference hosted by The Puget Sound Chapter of AAZK and Woodland Park Zoo. Times have been tough, but every little bit helped us to put on a fantastic conference. We certainly could not have done this without so many generous contributions of money, items, time, and manpower from so many, many people - including all of those who were able to come to the conference this year as delegates. You helped make it a fun-filled week of networking and information sharing. I hope you all got out of it as much as we did.

Also, a special thanks goes out to those who helped plan the event. No matter how big or small, your involvement and your efforts did not go unnoticed.

~The Conference Chairs

With a grateful, Thanks Again to everyone, we would like to recognize our major sponsors and donors below:

2009 AAZK / ICZ Conference Support

Significant support:

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**ICZ
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From the President

AAZK in Action

By now the joint conference of AAZK and the ICZ has come to a close, and most of you are coming down from the mountaintop. All week you were informed, inspired, and empowered to become leaders in professional animal care and conservation. Hopefully you have returned to supportive institutions, managers, and co-workers who can help you achieve your lofty goals and objectives. Perhaps you just volunteered for an AAZK Committee, decided to run for the Board in the next election, came up with a new enrichment idea, or found a cause in conservation that has really inspired you to get involved. Maybe the networking with our colleagues from the ICZ has resulted in a project that will advance professional animal care on a global scale. Whatever your vision may be, AAZK is here to help. If you need help getting started, drop me an email and we can get you pointed in the right direction.

As you read this, twenty or more of your fellow AAZK members are participating in Zoo Keeper Leadership Camp in Churchill, Manitoba. AAZK and Polar Bears International have created this groundbreaking program that takes professional zoo keepers and places them in situ, where they will be trained in the most advanced techniques of leadership, conservation, and education. Are you one of the next leaders of AAZK and your profession?

Over the last few years, AAZK has worked hard to counter the effects of a sluggish economy. Incredibly, we have improved all facets of the Association, including the website, AKF, our professional development program and more, without increasing your annual membership fees. This issue of AKF features a program that can help you keep those costs down, while adding something special to your BFR program, raising awareness of AAZK and BFR, and improving the future for rhinos and other critically endangered wildlife. On the cover you will see the artwork of renowned painter Curt Parker, which portrays Mawingo, a black rhino from Lewa Wildlife Conservancy. Inside the issue you will find details on how to get involved in a notecard sale that will raise funds for the Association, as well as your Chapter. The AAZK Board and Staff have worked hard to find ways to keep your costs down, and this exciting program offers a new way for you to support the Association. I urge all of our Chapters to get involved. (*Editor's note: see page 423 of this issue*)

In addition to the two exciting programs mentioned above, the AAZK Board and Staff have been working hard on many other projects. These include the creation of new marketing materials and products, planning for a Venomous Animal Workshop in 2010, collaborating with Professor Mark Irwin to create a textbook on animal care for zoology students, expanding our professional development program even further, continuing to improve AKF, and expanding our collaboration with AAZK's Conservation Partners.



**AMERICAN
ASSOCIATION**
of ZOO KEEPERS

There is more going on in AAZK than ever before. Our mission continues to include providing you with resources for all of your professional endeavors in animal care, continuing education, professional development, education, and conservation. If you want to get involved, you have an idea, or there is something you need, just let me know. This is your professional association, and the AAZK Board and Staff are here to help.

Shane Good
AAZK President
shane.good@aazk.org

Coming Events

Post Your Coming Events Here
email to: akfeditor@zk.kscoxmail.com

October 15-18, 2009 - Elephant Facility Design Workshop - to be held at the Dublin Zoo in Ireland. Will include presentations on the following topics: A Day in the Life of an Elephant - Developing a Design Mission; The Grand Design, an Overview of Elephant Habitat Design; Giant Footsteps, The Development of Dublin Zoo's Elephant Programme; Laying the Foundations - A History of Elephant Management; Reaching the Target - Elephant Training at the Dublin Zoo; The Winding Path - the History of Zoo Architecture; To Err is Human - Lessons Learned from the Design of the Kaziranga Forest Trail; The Bigger Picture - A Day in the Life of Dublin Zoo's Elephant Herd; Male Order, Bull Elephant Habitat Design; and Important Additions to the Elephant Habitat Design. Presenters will be Alan Rucroft of ELEPHANT BUSINESS and Grant Jones of Jones & Jones (Seattle, WA), and staff from the Dublin Zoo. For more information & booking contact Aoife Keegan at 00353 (1) 4748997 or email elephantdesign@dublinzoo.ie

October 21 – 25, 2009 - The Zoological Registrars Association (ZRA) 2009 Annual Conference "Foundations for the Future", will be hosted by Zoo Boise in Boise, Idaho. The Annual Conference Program will begin with leadership training and the Icebreaker on Wednesday, October 21. General Sessions will be held on Thursday, October 22 and Saturday, October 24 and will feature topics like Record Keeping, Permits and Wildlife Legislation, Animal Transport and Records and Collection Management. There will be a variety of formats for presentations including individual papers, workshops, panel discussions and poster presentations. Zoo Day will be held on Friday, October 23 and will culminate with a special dinner celebrating ZRAs' 25th Anniversary. A special evening at Bogus Creek Outfitters featuring a cowboy-style dinner, cowboy poetry, Wild West shoot out, karaoke and a bonfire has been scheduled on Saturday, October 24, and the 2009 Annual Conference will end on Sunday, October 25 with additional ZIMS sessions. ZRA, Zoo Boise and the Owyhee Plaza Hotel welcome delegates to Idaho. Please visit the ZRA website at www.zooregistrars.org or contact the 2009 Annual Conference Host, Corinne Roberts/Registrar for Zoo Boise, at (208) 384-4260 ext. 101 or by email at cxroberts@cityofboise.org. If you have questions about the 2009 ZRA Annual Conference Program, please contact the Program Chairman, Pam Krentz/Registrar for Cleveland Metroparks Zoo at (216) 635-3361 or by email at pak@clevelandmetroparks.com

November 6-8, 2009 - Second International Bear Care Conference: "Advancing Bear Care '09" – to be held in San Francisco, CA. For more info see <http://www.bearcaregroup.org>

March 3-6, 2010 - International Association of Avian Trainers and Educators (IAATE) Conference held in Albuquerque, NM. It's not too early to start planning to attend the 2010 IAATE Conference hosted by Avian Ambassadors in Albuquerque, New Mexico. The 2010 IAATE Conference will provide a wonderful opportunity to learn more about avian training, show content, educational messaging, enrichment ideas, avian health and welfare from the leading authorities in the industry. Get ready for Conference Trips, Workshops, Visit the Rio Grande Zoo and Aquarium, and we are bringing back the Training Panel. **Stephen J. Bodio** is our Keynote Speaker. Steve was born and educated in Boston and has lived in Magdalena, New Mexico, for over twenty years. He has traveled extensively in Europe, Africa, and especially Asia. His book *Eagle Dreams* is about the Kazakh horsemen of Mongolia. It is the journey to and in writing this book that Steve will talk about with his slide presentation. We also have **Susan G. Friedman, Ph.D** with a featured paper on Saturday morning! Dr. Friedman is a psychology professor at Utah State University with a special interest in applied behavior analysis (ABA), the technology of behavior change so effective with human learners. Over the last decade, she has pioneered the dissemination of ABA principles, procedures and ethical standards to improve the quality of life for animals. For more information visit www.IAATE.org and start planning today!

This year, Online Registration is available! Go to www.IAATE.org for all registration and conference details. Online registrations must be submitted and Mail-in registrations must be postmarked by February 6, 2010. Walk-in registrations will be accepted at the conference.

Hotel Reservations must be made by February 14, 2010 to get the special IAATE rate.

April 15 –18, 2010 - 4th Otter Keeper Workshop - the Cincinnati Zoo in Cincinnati, Ohio will host. This year the focus of the workshop will be expanded to include all of the otters managed under the Otter SSP® North American river otters, Asian small-clawed otters, African clawless, African spot-necked and giant otters. Keepers working with any of the species are welcome to attend. Topics will include: captive management issues, enrichment, training, water quality, health care, nutrition, diet, hand-raising, exhibit design, lots of sharing of information between keepers.

Registration will be \$75 and the deadline is December 15, 2009. Spots fill up fast so please register early. A waiting list will be maintained once the workshop is filled. Due to the popularity of the workshop, priority will be given to first time attendees. Please just one registrant per

institution. No refunds after January 15, 2010. Accommodations: A hotel near the Cincinnati Zoo or the Newport Aquarium. Room negotiations are ongoing. Roommates are encouraged. You will be matched if you indicate that you wish to have a roommate. Information can be found on: www.OtterSpotter.com

For more information contact: David Hamilton at Seneca Park Zoo, 2222 St. Paul St., Rochester, NY 14617; phone: 585-336-2502; 585-266-5775 fax dhamilton@monroecounty.gov

April 25-30, 2010 - Animal Behavior Management Alliance (ABMA) Annual Conference - In Pittsburgh, PA. The theme of this 10th Anniversary Conference is "Defining a Decade: Animal Management - Past, Present, and Future".

Conference programming includes: Dr. Vint Virga,

a Veterinary Behaviorist as keynote speaker, formal presentations, numerous workshops and seminars, a poster session, and site visits to animal facilities. All conference details can be found at www.theabma.org. The conference will be held at the Hilton Pittsburgh located in downtown Pittsburgh. Mention that you are with the ABMA and receive a special room rate of \$119/night. Reservations must be made by March 23, 2010 at 412-391-4600. Contact Nicole Begley at nicole.begley@aviary.org or 412-323-7235 ext 216 with questions.

August 30 - September 3, 2010 - 7th International Penguin Conference - in Boston, MA. Hosted by The New England Aquarium. For info email ipcboston@neaq.org

September 28-October 2, 2010 - 20th International Zoo Educators' (IZE) Biennial Conference - at Disney's Animal Kingdom, Orlando, FL. For more information, please visit <http://www.izea.net>

Call for Papers for AKF Dedicated Issue on Avian Husbandry and Breeding

Zoo and aquarium animal collections are experiencing a crisis in sustainability. Without successful husbandry and breeding we stand to lose the diversity that is vital to great collections. This is being strongly felt in the avian world. In March of 2010 there will be a dedicated issue to avian husbandry and breeding. We are seeking articles pertaining to what has worked, and often more importantly, what has not worked in the art and science of avian husbandry and breeding. By sharing information we can begin to make collaborations and work towards building stronger and sustainable populations.

Papers should be submitted electronically in MS Word **only** to akfeditor@zk.kscsxmail.com. Please put Avian Special Issue in your subject line. Papers should be no more than 10 pages in length. Any charts or graphs should be submitted as separate jpg or tif files along with the manuscript. We would encourage photos of your animals to include and these should also be submitted electronically as either jpg or tif files. Please make certain all photos are high resolution (300 dpi)

If you cannot submit your materials electronically, you may send them on a disk or CD to: Dedicated Issue, AAZK, Inc., 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054. If you cannot submit your photos electronically, you may also send 3x4 inch prints. Be sure to include proper photo credit and suggested captions for each photo are appreciated.

You should also include your complete contact information including address, email and daytime phone number where you may be reached if we have questions concerning your submission.

Deadline for receipt of articles for consideration is

January 5, 2010



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AAZK Announces New Members

New Professional Members

Lynde Nunn, **Cape May County Zoo (NJ)**; Cierra Allen, **Elmwood Park Zoo (PA)**; Lisa Walker, Patrick Retkash, Macia DeSisto, Sheila Sewell, **Binghamton Zoo at Ross Park (NY)**; Marilyn Johnson, **North Carolina Museum of Life & Science (NC)**; David Walker and Aprilyn White, **Dade City Wild Things (FL)**; Melissa Anderson, **Boonshoft Museum of Discovery (OH)**; Jessica Piliouras, **Binder Park Zoo (MI)**; Ahsley Konon, **Kansas City Zoo (MO)**; Marcie Tarvid, **Tulsa Zoo (OK)**; Tarren Wagener, **Ft. Worth Zoo (TX)**; Manda Butler, **Cameron Park Zoo (TX)**; Ashley Young, **Cheyenne Mountain Zoo (CO)**; Maria Altemus, **Reid Park Zoo (AZ)**; Jessica Leigh, **The Wildlife Company (CA)**; Shawn Thomas McDonald, **Santa Ana Zoo (CA)**; Leslie Thalman, **Safari West Wildlife Preserve (CA)**; Janee Thill, **Sequoia Park Zoo (CA)**; Alison Mott, **Sacramento (CA)**; Lisa Chickos, **Alaska Zoo (AK)**; Kristen Reinisch, **Assiniboine Park Zoo (Manitoba, Canada)**. *(We no longer print the names of those Professional Members who do not list their facility on their membership application/renewal. There were four for October.)*

Renewing Contributing Members

Joan Rog, Volunteer
Cleveland Metroparks Zoo
Medina, OH

Renewing Institutional Members

Prospect Park Wildlife Center
Brooklyn, NY
Dan Whartan, Director of City Zoos

Black Pine Animal Park
Albion, IN
Karen Hoag, Founder

Cosley Zoo
Wheaton, IL
Susan Wahlgren, Director

Scovill Zoo
Decatur, IL
Mike Borders, Director

Happy Hollow Zoo
San Jose, CA
Greg Owens, Director

Runners For Rhinos?

(running with rhinos?)

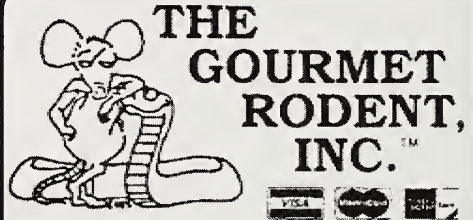
Are there AAZK members who would like to run in the SafariCom Marathon or Half-Marathon at Lewa Wildlife Conservancy (Kenya) in 2011?

If there is enough interest from AAZK members I would volunteer to organize the trip to Lewa including a Safari and the marathon activities for June, 2011. I am an AAZK member and an experienced Lewa trip leader, and Lewa management is aware and supportive of an AAZK team participating in the marathon. I'd like to tie the event to raising BFR money in addition to whatever portion of the race expenses distributed by SafariCom/Tusk to LWC.

Details to come, with sufficient interest; suggestions invited.

Intrigued? Please send an email expressing your interest to:
Runners4Rhinos@tampabay.rr.com

Larry Clement
Dunedin, FL



RATS AND MICE

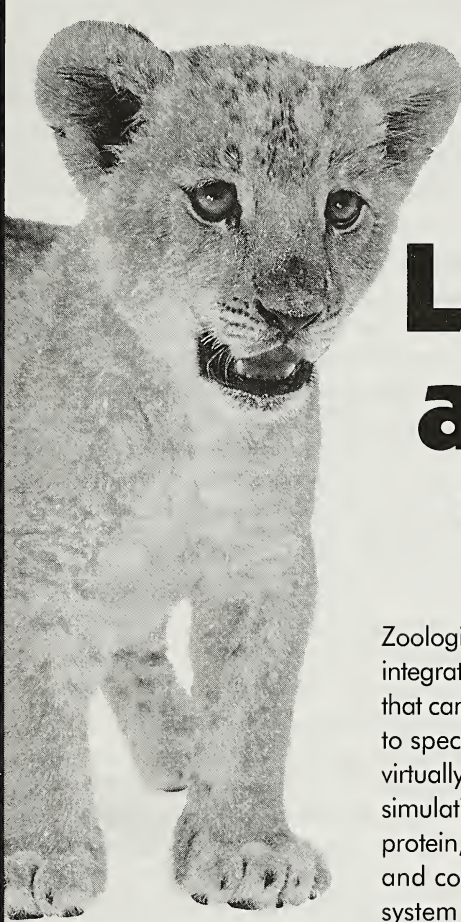
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2009 AAZK/AKF Award Recipients

The following are recipients of awards presented at the 2009 AAZK/ICZ Joint Conference held in Seattle, WA and hosted by the Woodland Park Zoo and the Puget Sound AAZK Chapter. The *Certificates of Recognition*, the *Certificates of Appreciation* and the *Chapter of the Year* are given by the AAZK Board of Directors. The *AKF Excellence in Journalism Awards* are selected by the journal's editorial staff. All other listed awards are determined by the AAZK Awards Committee from nominations received from the membership.

Lifetime Achievement Award

Lucy Segerson, North Carolina Zoological Park. This award is based on her outstanding commitment to professionalism in her distinguished career as a zoo keeper. Specifically noted has been her work developing standard operating procedures for the African Pavilion and its grand opening; gorilla behavioral enrichment and training; participation in the Jane Goodall "Chimpanzee" research project; Patas monkey research; establishing an enrichment garden for the zoo's animals; initiating the North Carolina Zoo Chapter's acquisition of a Center for Ecosystem Survival conservation parking meter, and their participation in the Adopt-an-Acre program. Also noted is her service to AAZK on a Chapter and National level. Her dedication to the animals and the zoo keeping profession is outstanding. Such action earns the praise and respect of all members of the zoological profession.

Lutz Ruhe Meritorious Achievement - AAZK Professional of the Year Award

Nicole Presley, Toronto Zoo. This award is based on her outstanding commitment to professionalism in her career as a zoo keeper. Specifically noted has been her work mentoring zoo keepers; creating and implementing protocols and testing as the Training and Enrichment Supervisor; initiating and being the primary organizer of the "Keeper For A Day" fundraising event allowing keepers to promote wildlife education and her AAZK Chapter to support conservation organizations and keeper professional development; and presenting a paper on hand-rearing a young dhole pup. Also noted is her service on the AAZK Southern Ontario Chapter Executive Board, as Chair of the 2001 National Conference Fundraising Committee, and as a member of the AAZK Marketing Committee.

Jean M. Hromadka Excellence in Animal Care Award

Vernon Presley, Toronto Zoo. This award is based on his outstanding efforts in establishing and maintaining a dynamic and efficient elephant program instrumental in advancing the welfare of the elephants under his care; his work on the AAZK Animal Training and Behavioral Husbandry Committees; assisting with the development of an advanced training and enrichment workshop; serving as 2001 National Conference Co-Chair; and his commitment to elephant conservation and education both to the public and colleagues. Also noted is his service as Chair of the Elephant Managers Association Training Committee.

Lee Houts Excellence in Enrichment Award

Point Defiance Zoo and Aquarium Enrichment Committee for implementation of a comprehensive zoo-wide enrichment database that includes enrichment approval forms, an enrichment catalog where items can be sorted by species or enrichment type, a review process for previously given enrichment items where cautionary notes may be added, and the ability to track reports on every parameter of the program. Specially noted is Sara Mattison's development of the database to generate a daily enrichment plan following specified parameters for frequency and random selection of enrichment types from which staff members are free to select the desired enrichment within the assigned category.

Lifetime Achievement Award - Lucy Segerson

Lucy Segerson became a zoo keeper in 1984 at the North Carolina Zoo. She first worked with the zoo's lions, chimp and baboons. Due to her dependability and knowledgeable skills, she was moved to and was instrumental in the grand opening of the new African Pavilion exhibit and developing the standard procedures for the area. Since there was little criteria for Patas monkey introductions, Lucy did observations, collected data, documented her findings and put the information into ethograms. From 1987 through 1993 she made hundreds of hours of observations for the Jane Goodall research project "Chimpanzoo" developed to document varying behaviors of chimps over an extended period of time. She contributed monthly reports to this project along with her observations.



Lucy Segerson, North Carolina Zoo

Lucy brought information on behavioral enrichment and training that she learned at AAZK conferences and applied it to the gorillas housed at the zoo when training animals other than the zoo's African elephants was uncommon.

With her dedication towards the training and behavioral enrichment of the gorillas, she was able to improve the management of these animals. This was proven when one of the gorillas she trained was transferred to another zoo and given a role in a major motion picture. With her interest in enrichment, she established an enrichment garden for the animals of the North Carolina Zoo where she did a majority of the work and planning.

She has volunteered at the zoo's veterinary hospital as a neonatal volunteer helping to raise zoo babies. She was hardworking and always willing to take on jobs that others did not want to deal with and always with a positive attitude and a smile. While still a zoo keeper she took on the registrar position until her title was officially changed to Registrar in 2003. Even then, for a period of time, she continued to work as a keeper when needed.

Lucy was a founding member of the North Carolina Chapter of AAZK and held the offices of President, Secretary, Treasurer and Chapter Liaison and served as a National Board Member from 1995 to 1999. She initiated the Chapter's acquisition of a Center for Ecosystem Survival conservation parking meter and their participation in the Adopt-an-Acre program. She has presented papers at National AAZK conferences and a regional AZA conference. Lucy also has been an active member of the Zoo Registrars Association, AZA, World Wildlife Fund, the Jane Goodall Institute and the North Carolina Zoological Society.

Through her dedication and accomplishments in the zoo keeping field, Lucy defines what it means to be a zoo keeper. She has the heart, drive and dedication that is an inspiration to all keepers.

We congratulate Lucy of the receipt of the Lifetime Achievement Award.

Certificate of Merit in Zoo Keeper Education

Wild Wonders Outdoor Theater Staff: Maureen O'Keefe, Sara Mattison, Jessica Sutherland and Karen Povey, Point Defiance Zoo and Aquarium for developing a comprehensively-tiered training and evaluation program that provides a solid foundation for interns and new animal handling staff members as well as opportunities for returning seasonal staff members to have increasing responsibilities and learning experiences as motivation to return and to further their career development.

Certificate of Recognition

Jacque Blessington, Kansas City Zoo
for serving on the Board of Directors from 1997-2009

Denise Wagner, Phoenix Zoo
for serving on the Board of Directors from 2001-2009

Penny Jolly, Disney's Animal Kingdom
for serving as the Co-Chair of the Conservation Committee

Carolyn Austin, Woodland Park Zoo
2009 National AAZK Conference Co-Chair

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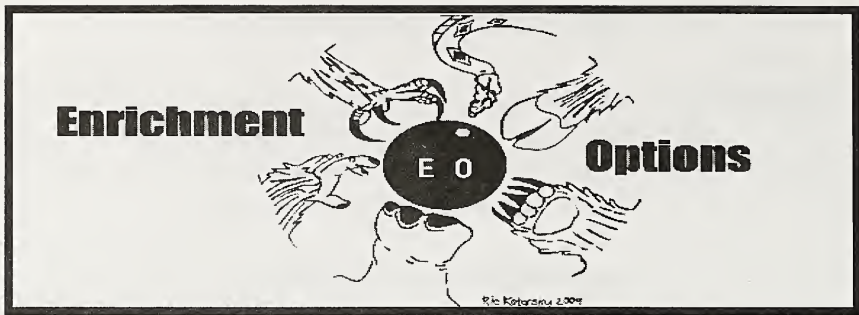
Ashleigh Kandrak, Lion Country Safari

Cover Art Award for 2009

Female Giraffe and Calf

August 2008 *AKF*





EO Editors -

Julie Hartell-DeNardo, Oakland Zoo and Ric Kotarsky, Tulsa Zoo & Living Museum

These are a few of our favorite things...

By Jodi Carrigan – Zoo Atlanta Primate Department

Ape enrichment that lasts longer than 20 minutes... Could it be possible?

Here at Zoo Atlanta we currently house 33 very intelligent great apes. Like other institutions we are always looking for new and useful enrichment ideas for our primate collection. Frequently the day-to-day challenge is to find quality enrichment that keeps the animals engaged for longer than 10 or 20 minutes. Since we've encountered this issue, we figure many other institutions have as well. The following ideas are a few of our (and the primates) favorite things aside from the usual treat dippers, raisin boards, frozen boomer balls, etc., that we thought we'd share, in hopes they might be as useful to your collection as they are to ours.

Computer Assisted Enrichment – The computer assisted enrichment allows the apes to perform tasking abilities such as matching similar pictures, a maze where they move the cursor through to the end, and a paint program that allows them to use their creativity. Most of the programs are associated with an automatic feeder that responds when the apes successfully get the tasks correct. Because of the automatic feeder there doesn't need to be a keeper present, which is very beneficial for busy keepers. It allows the animals to have some control over their environment, it's mentally stimulating, visually enriching, and it occupies hours of their time.

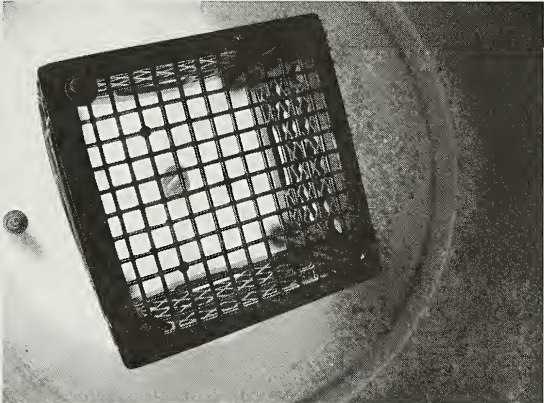
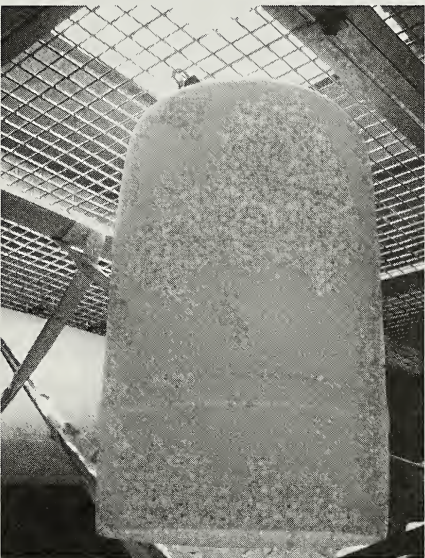
The newest program we are working with the orangutans on is a task called categorization, where they have to learn that a particular symbol represents a class of objects. It is somewhat equivalent to



Orangutan Madu working hard on the computer while on exhibit at Zoo Atlanta. (Photo: Zoo Atlanta)

us learning that the random symbol “fish” represents the huge assortment of things we call fish (e.g. stuff on your plate, picture of fish, live fish in a bowl, pencil drawing of fish). We classify those all as fish even though they look different, and the orangutans can do the same thing. Currently they are learning fish, flower, bird and human.

Down Under - The Down Under is a 55-gallon drum with a milk crate attached securely underneath. The food is placed inside the milk crate, and the apes have to figure out how to get up into the drum to obtain the food by using their fingers or tools, or some just shake it like crazy. To make it even more challenging, place in a hard-to- reach location or on top of a fire hose so they need to balance to obtain the food. Females and infants are usually able to get up into the drum, whereas silverbacks and large orangutans have to work a bit harder to balance and get the food. We have found bread and prunes to be the most effective foods to use and on the easier side to clean. Suggestion: Don’t use foods that are extremely sticky because it will attract fruit flies. For complete directions for building, email me at JCarrigan@zoatlanta.org . Hint: the orangutan version I built I welded just to be certain of its indestructibility, as we all know how orangutans can be.



At left is a side view of the Down Under. Above is view inside of the Down Under showing attached milk crate.

Below left orangutan JT checks out the Down Under enrichment device. Bottom right, gorilla Olympia takes her turn at the Down Under.



(Photos on this and following page by Jodi Carrigan)

Hammocks – We were able to find some amazing hammocks! They are very lightweight, easy to hang and very easy to clean. The material is keeper friendly in that it's easy to clean and allows for drainage. Also, it is so light weight that it can be managed by one person, unlike the typical fire hose hammocks that often takes three people to hang. These hammocks already come with loops in the ends making them very easy to hang. Depending on the material used, it could pass for naturalistic looking and perfect for on exhibit. The company makes whatever size you need (just specify when ordering). Last but not least, they are very reasonable in price. Our gorillas have had no problems with the hammocks, but we did go through a few for the orangutans until they realized the hammocks were more useful to relax in rather than more fun unraveling. Contact info: Cosner Manufacturing Company (800) 428-2247. Ask for Denise Upchurch and be sure to tell them that Zoo Atlanta sent you!

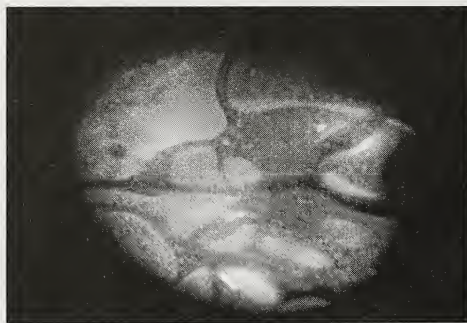
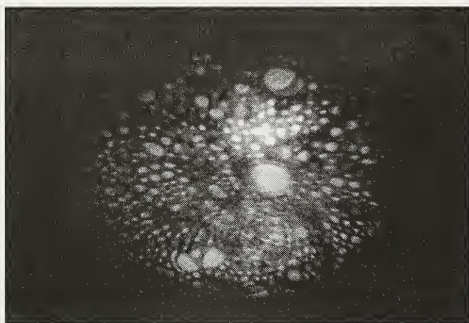


Willie B Jr. out on exhibit



Chantek enjoying his hammock from inside the holding area)

Liquid Light Projector – There are a bunch of products out there like this right now at toy stores and novelty shops such as Spencers Gifts®, etc. It's a great interactive device especially for rainy days when the animals are stuck indoors.



These ideas are all extremely effective for Zoo Atlanta's primate collection and we hope they might be of some use to you.

Editor's Note: Ideas appearing in this column have not necessarily been tested by the editors for safety considerations. Always think ahead and use good judgement when trying new ideas. You are invited to submit material for the Enrichment Options Column. Contact the AKF Editor for a copy of the guidelines by emailing akfeditor@zk.kscoxmail.com<. Drawings and photos of enrichment are encouraged. Send articles as MS Word attachments to the above email address. Photos, graphs or charts should be sent electronically as individual jpg or tif files. You may also mail a disk or CD of the article to: AKF Editor/Enrichment, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054

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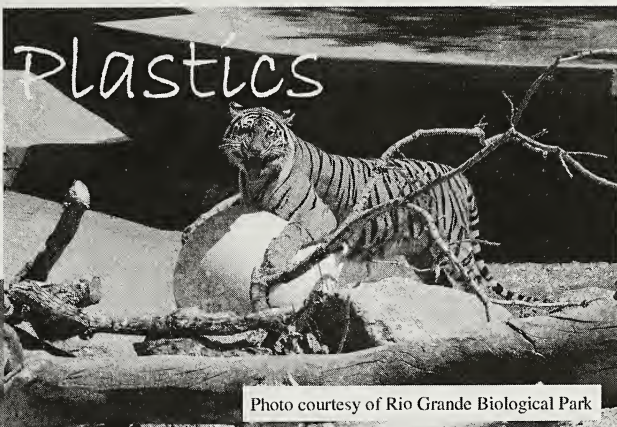


Photo courtesy of Rio Grande Biological Park

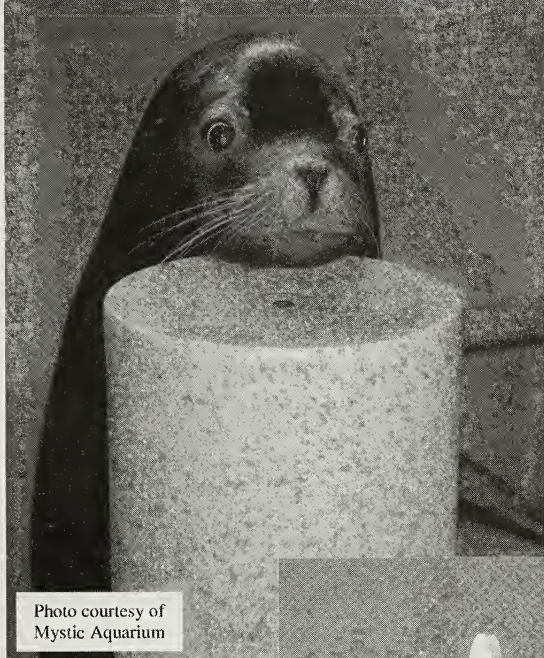


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Bowling for Rhinos Keeps Critically Endangered Indonesian Rhinos Safe

*By Dr. Susie Ellis, Executive Director and Margaret Moore, Development Director
International Rhino Foundation, Yulee, FL*

The Rhino Protection Unit (RPU) program in Indonesia, partially funded by the American Association of Zoo Keepers Bowling for Rhinos program, is the front line of defense for critically endangered Sumatran and Javan rhinos. Bowling for Rhinos funding has essentially helped to put a halt to rhino poaching in the three parks where the International Rhino Foundation (IRF) works: Bukit Barisan and Way Kambas National Parks in Sumatra, and Ujung Kulon National Park.

Indonesia and Brazil are the two most biodiverse countries in the world, in terms of mammalian species. For the foreseeable future, Indonesian national parks will not have resources to adequately fund proactive measures to prevent harm to its unique and at-peril wildlife. Therefore, as human populations increase and the threats from illegal activities such as encroachment and illegal logging grow, the protection provided by the Rhino Protection Units (RPUs) remains essential for the survival of Indonesian megafauna. Since 2003, apprehension and prosecution of poachers and other violators has been very successful, and many activities of the RPUs now are being directed to intelligence gathering for law enforcement. Cooperation with the authorities is good, but law enforcement is costly in Indonesia. Proactive protection measures are, for now, the best option to secure rhino populations and can only be achieved when there are dedicated and reliable teams in the field that can render poaching and other illegal activities both unprofitable and risky.



RPU member measures the depth of a rhino wallow.

(Photo: Yayasan Badak Indonesia)

includes classroom instruction and field exercises, including navigation, record taking and law enforcement practices. Only candidates that pass the final test are recruited – and competition is fierce.

RPUs immediately remove any traps or snares discovered during patrols and investigate any illegal activity. If appropriate, evidence is collected, arrests are made, and a crime report prepared. Perpetrators are taken to the National Park headquarters for further processing by a civil investigator from the Park or the police. Beyond this point, the RPUs have no further role, but are called as witness if the case is brought to court. The National Park and the police are the two bodies responsible for preparation of a case and formally charging suspects.

RPUs are highly trained four-man anti-poaching teams that intensively patrol key areas within national parks. RPUs deactivate traps and snares and identify and apprehend illegal intruders, including poachers, and investigate wildlife crime. Each RPU is led by a park ranger, who has the authority to carry firearms and arrest suspected poachers. The other three members of the RPU are recruited from local communities and are armed only with pepper spray for subduing uncooperative suspects. Recruits undergo a rigorous selection process that includes running, swimming, hiking, and other physical activities, followed by an intensive training course. Training

Proactive poaching prevention is the main objective. RPU patrols, deployed for ~15 days in the rainforest per month per Unit, increase the risks for potential poachers, while decreasing chances for a good ‘take’. This deterrent has worked well over the past years, and once an area is regularly patrolled, normally no more poaching is detected and all other wildlife indirectly benefits from the presence of the RPUs. RPUs also record data on rhino sightings, footprints and other spoor, which is entered into a central database.

Sumatran Rhinos

Bukit Barisan Selatan National Park (BBS) in Sumatra, Indonesia, is one of the highest priority areas for Sumatran megafauna. Approximately 50-70 rhino, 40-50 tigers, and about 500 elephants inhabit the Park. RPUs have been operating in BBS since 1995. Originally, the RPUs focused on rhino, but now cover all the megafauna and habitats in both the southern and northern portions of the Park, counteracting all forms of wildlife crime and habitat destruction, such as illegal logging and encroachment. This work is augmented by a law enforcement and advocacy program (Intelligence and Law Enforcement Unit or ILEU) that facilitates prosecution of poachers. Eight anti-poaching units are now in operation.

In the last six months, BBS RPU patrolling resulted in:

- 58 rhino footprints identified.
- 1 instance of illegal logging encountered.
- 1 instance of encroachment encountered.
- 1 instance of fish, bird, deer and/or pig poaching encountered.
- 8 investigations conducted to gather information on illegal wildlife trade near park boundaries.



RPUs arrest illegal loggers (Photo: Yayasan Badak Indonesia)

The RPUs interact intensively with local communities, including intelligence gathering. RPUs have aided farmers living next to the Park in improving environmentally friendly crop production, which has resulted in a decrease in encroachment and an overall increase in income for the farmers. Farmers have switched a portion of their crops to cacao, which allows harvest monthly, as opposed to coffee, which provides only an annual harvest. In some areas in BBS, encroachment has decreased by as much as 60%. All of these activities combine to protect the Sumatran rhino and its ecosystem more effectively and efficiently.

In Sumatra's *Way Kambas National Park*, five rhino protection units have been fully functional since 2001. The core, intensive protection zone in Way Kambas has maintained status quo for the past 5-6 years, with a stable rhino population. This area also is home to Sumatran tigers, elephants, Malayan tapirs, sun bear, and other megafauna. This year, in collaboration with the Wildlife Conservation Society, RPUs completed an intensive survey using grid transects and patch occupancy methodology to document as how many rhinos live within the Park boundaries. The survey suggests that Way Kambas is home to 25-27 adult rhino, and at least four juveniles.

Specific results of patrolling during the past six-month period include:

- 52 rhino footprints identified.
- 9 instances of illegal logging encountered.
- 35 instances of illegal encroachment encountered.
- 12 instances of illegal poaching (bird, fish, pig and/or deer) recorded.
- At least 26 deer and pig traps encountered and removed.
- 6 poachers apprehended and arrested.

Compared to 2007 and 2008, there has been a slight increase in illegal activity in Way Kambas in 2009. We believe that a poaching network previously active in Kerinci Seblat National Park (where the Sumatran rhino was poached to extinction in the early 2000s) is now trying to gain access to Way Kambas, evidenced by an increase in traps detected. These traps seem to be precisely modeled on the traps previously found in Kerinci Seblat, so RPU vigilance in Way Kambas has been increased. Several weeks ago, a Way Kambas RPU arrested three poachers armed with machine guns.

Javan Rhinos

The Javan rhino is Critically Endangered, with fewer than 55 animals believed to exist in two known populations. In December 2008, a track analysis census along transects, part of a long-term effort to monitor the population in Ujung Kulon, suggested the population is between 38 and 50 animals. This census is being backed up by camera-trapping overseen by WWF Indonesia. IRF and the Asian Rhino Project purchased 40 new camera traps to assist with this endeavor. It is believed that between three and five individuals also live in Cat Tien National Park in Vietnam, but there is no information available about the sex and age of the population.

RPUs have improved and intensified the protection of Javan rhino in Ujung Kulon by creating an Intensive Protection Zone (IPZ) in the areas occupied by rhino. While the rhino population has been stable for a number of years, park encroachment recently has been increasing. In response, IRF and its partners are in the process of establishing a new Intelligence and Law Enforcement Unit to conduct investigations and make arrests and to work closely with local communities to build closer relationships and support for rhino conservation.

In late 2008, a fourth RPU was hired to provide additional protection for rhinos that have been wandering into Gunung Honje in the eastern portion of the park, where they face increased threats from poaching.

Specific results of patrolling during the past six-month period include:

- 174 rhino footprints identified.
- 2 instances of illegal logging encountered.
- 2 instances of park encroachment encountered.
- 29 instances of illegal poaching (fish, bird, deer and/or pig) observed.

RPUs have essentially eliminated losses of Javan rhino to poaching and remain critical for their continued survival. The overriding problem now is that although the Javan rhino population in Ujung Kulon has stabilized, this species has only one reproducing population in one location. Thus, there is still significant risk of extinction from a single natural disaster or introduced disease. Ujung Kulon and surrounding areas were decimated by the eruption of Krakatau in 1883, one of the most violent



volcanic events in modern times. Anak Krakatau (“son of Krakatau”) is still active, and the risk of another eruption, and the possibility of a resulting tsunami, still exists. There have also been rhino deaths as a result of diseases introduced by domestic livestock living in villages near the park.

In early 2009, about 40 members of the IUCN/SSC Asian Rhino Specialist Group convened to identify priority actions for both Javan and Sumatran rhinos in Indonesia. The group agreed that in addition to ongoing protection, a major priority was to establish a second viable population of Javan rhino in Indonesia as an ‘insurance’ population, to prevent the extinction of this critically endangered species. Under IRF’s leadership, work towards that goal is underway, which will take at least two years to design, fund and implement.

2009 Bowling for Rhinos Trip

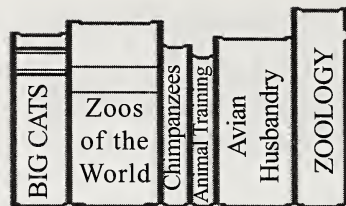
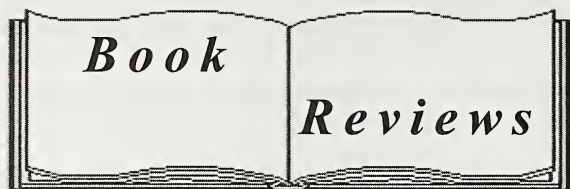
In June, we had a fantastic Bowling for Rhinos trip, visiting Ujung Kulon, Bukit Barisan, and Way Kambas National Park, as well as the Sumatran Rhino Sanctuary, home to five captive Sumatran rhinos. We were happy to welcome Bob Cisneros (San Diego Zoo), AAZK Board member, on this year’s trip, so that AAZK leadership could see first-hand the important work that is accomplished with its funding. BFR winners participating in the trip were Jennifer Thomas (Detroit Zoo), Kim Sevier (Tulsa Zoo), and Rue Hoover (Miami MetroZoo). Sophie Lourandos (from IRF’s partner, the Asian Rhino Project, Australia) also joined the trip.



2009 Bowling for Rhinos trip participants in Ujung Kulon National Park (l-r) Sophie Lourandos, Susie Ellis, Rue Hoover, Jennifer Thomas, Bob Cisneros, Kim Sevier.

(Photo: Sectionov, IRF)





The Biology of Rattlesnakes

Edited by William K. Hayes, Kent R. Beaman, Michael D. Cardwell, and Sean P. Bush

Foreword by Gordon W. Schuett

Loma Linda University Press (2008)

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20 color plates with 92 color images; 214 b&w figures; 92 data tables

ISBN: 978-159410-011-6

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Rhino Note Card Project

Attention AAZK Chapter Members,

The American Association of Zoo Keepers, Inc. has partnered with renowned wildlife artist Curt Parker to create note cards depicting the image of Mawingo, a hand-raised and blind black rhino from the Lewa Wildlife Conservancy, along with one of her calves. The artwork for these note cards is featured on this month's cover.

The note cards are printed on recycled paper, have the rhino image on the front, are blank on the interior, and contain a brief story of Mawingo on the back. The cards are attractively packaged; ten cards and envelopes to a box, with a clear plastic cover, making the note cards a perfect gift with a conservation story.

This fundraising opportunity is designed to benefit both the National Association and participating AAZK Chapters, as well as help contain AAZK costs and reduce the amount of membership fee increases. AAZK will offer the rhino note cards at a low introductory price and will allow our Chapters to set their own resale price for their communities and thus achieve their own profit margin.

The note cards are perfect for sale during *Bowling for Rhinos* events, as the artwork depicts a signature rhino from the Lewa Wildlife Sanctuary, one of the four entities that receive direct monetary support from the funds raised through BFR events. If your Chapter or facility will not host a BFR event in 2010, the note cards still make a perfect Chapter fundraiser.

AAZK must reach a minimum order of rhino note cards to determine how many cards we will print. Therefore it is very important to discuss this fundraising project with your Chapter members **as soon as possible** and return your order form to AAZK **before 1 December 2009**. All active AAZK Chapters were sent a special mailing containing a sample of the note cards and order form information in early September. You do not need to send any money with your order as AAZK will invoice your Chapter for the cost of the cards and direct shipping to your door. After your bulk purchase of note cards from the Association, your Chapter sets the price for all local sales and retains all the money on orders sold.

As a participation bonus, if you order two cartons of AAZK Rhino Note Cards, at Chapter Re-charter time AAZK will credit that purchase towards your Chapter's mandatory duty obligation for 2009, a \$487.50 value.

If you are not a member of an AAZK Chapter but would be interested in ordering note cards for a BFR or other conservation event at your zoo, please contact AAZK President Shane Good at shane.good@aazk.org or 216-661-6500 extension 4455.

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Training Tales...



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*Training Tales Editors – Jay Pratte, Zoo Atlanta; Kim Kezer, Zoo New England;
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Stationing: A Simple Behavior with Valuable Applications

*By Catherine Vine, BHC Committee Member
Bird Keeper, The Philadelphia Zoo*

Stationing is one of the simplest behaviors trainers can teach their animals, yet its value is often under-rated. Stations can be used to separate incompatible animals, keep aggressive animals away from keepers, and ensure the correct distribution of diet items. Keepers can also use stations as the first step to scale training, crate training, shifting, and many other behaviors.

While the concept of station training is fairly straightforward, keepers often find it overwhelming when dealing with a large number of animals in a single exhibit. How do you go about teaching one animal an individual spot to station without creating chaos in the exhibit? While it may seem to be a daunting task, it is well worth the effort and can save keepers time in the long run.

Getting Started

The first decision keepers need to make is which animals in the exhibit will be trained to station. It may be best to start with a small number, and add additional animals as you go. Generally speaking, it is a good idea to start with the most dominant or pushy animals. That way, these animals will already know the station behavior, and it will make it much easier to train more nervous animals with the aggressors safely stationed out of the way.

Once you've decided which animals to start with, you can choose stations for them. There are two types of stations to consider: fixed stations, which remain in the exhibit in the same location, and mobile stations, that can be taken in and out of the exhibit. There are advantages and disadvantages to both. Fixed stations are easier to manage, since they do not need to be carried around. These can be stumps, logs, perches, etc. that are in the exhibit. These types of stations work well for fairly stable groups of animals. For exhibits where dominance varies or where the collection is more unstable, mobile stations may be a better option. These can be any distinct item, such as a Frisbee®, a trash can lid, a bucket, etc. Ideally, they should be lightweight and easy to move around. The advantage to these types of stations is that they can be moved around the exhibit as needed. For example, if two animals become more aggressive towards each other during breeding season, their stations can be separated by a larger distance, keeping the animals calmer and more focused on training. In addition, if the animals are moved to a different exhibit, the stations can still be used, making the training process in the new exhibit much simpler.

Choosing the locations of the stations is an important decision. You can make your job much easier simply by putting a little bit of thought into the spots you choose for stations. Spend some time watching the animals in the exhibit. Figure out where they spend most of their time, what types of perches they generally use, and which animals spend time close together. Choosing stations that are



Stationing Southern ground hornbills on stumps at the Philadelphia Zoo (Photo courtesy of Kelly Heilmann)

comfortable spots for the animals will make the process go much more quickly, and will lead to longer durations of the behavior.

Finally, you'll need to decide on a reinforcer for each animal that you want to train. If you're planning to use food (the most common reinforcer), you'll need to choose something that isn't freely available in the exhibit, and that has a high value for the animals. For example, if you're station training in a large aviary, you may want to remove insects from the regular diet, and use those as a reinforcer. It's important to work

closely with vets, curators, and nutritionists when choosing food reinforcers, to make sure that each animal will continue to receive proper nutrition during the training process. Keep in mind that in the beginning, your ability to evenly distribute reinforcers will be compromised, so choose a reinforcer that is not a critical part of any animal's diet.

The Training Process

Once you've chosen the stations and reinforcers, you're ready to start training. But where do you begin? There are several ways to start training a station. You can stand in the exhibit and observe the animals. When one of them begins to approach the area or object you've chosen as its station, you can deliver a reinforcer. Continue to wait, and with each small step closer to the station, continue to deliver a reinforcer. Once the animal actually touches or stands on the station, you may want to deliver a jackpot (extra large) reinforcer. At this point, reinforce the animal only when it stands on or touches the station. Animals will learn very quickly (often in only a few short sessions) to stay on that station in order to earn reinforcement. The key is to accurately deliver reinforcement to only that animal, as well as to avoid having the animal receive reinforcement when not on the station. This may take some practice, but once your aim improves it gets much easier! This method is very effective, but may take more time, since you need to wait for the animal to make the first move.

Another, potentially quicker, method is to bait the animal to the station. This can be a fast way to teach animals to station, since it directs their behavior towards the station, rather than waiting for them to move towards it. It might also be easier for newer trainers since it doesn't rely on noticing small steps towards the station or being able to deliver accurate reinforcement anywhere in the exhibit. However, there are some limitations to this method. The biggest challenge is avoiding baiting the wrong animal to the station. If you're tossing food onto a rock, for example, it may be difficult to keep multiple animals from trying to get to the reinforcement. This can actually create an increase in aggression and complicate the training process. In addition, if the animal you want to station does come over but gets pushed away by other animals, that animal may be more hesitant to approach the station in the future.



The author entices a buff crested bustard onto a station with mealworms. (Photo by Diane Defeo, Philadelphia Zoo)



Increase duration slowly by increasing the time between reinforcement (Photo by Diane Defeo, Philadelphia Zoo)

As animals begin to learn their stations, it's important to work on adding duration to the behavior. This can be quite challenging when dealing with multiple animals at once, since you need to be very observant and quick to deliver reinforcement. In the beginning, animals will need to be reinforced frequently to keep them on the station. As they learn the behavior, you can slowly increase the time in between reinforcers. Be aware of the animal's body language, and look for signs that the animal is getting close to leaving the station. Signs may include leaning forward, repeatedly looking in one direction, decreased attention

toward the trainer, and many other subtle indicators. It may take some practice to become familiar with what to look for in each individual. Ideally, reinforcement should be delivered before the animal thinks about leaving, but realistically, you can reinforce the animal at the first subtle sign of waning interest and still build a strong station behavior. The more animals you work with at once, the more challenging this will be. Pay attention to which animals can go without reinforcement for longer periods of time, and which need more consistent reinforcement. Over time, you'll develop sense of who to reinforce when.

Conclusion

Once animals have learned to station, the behavior can be fairly easily maintained with consistency. Animals will quickly learn a routine, and will station reliably with very little effort. The key is to ensure that the majority of reinforcement is delivered when animals are on their station, and not elsewhere in the exhibit. Although it is certainly possible to station groups of animals with a single trainer, it may be easiest in the beginning to use multiple trainers if staffing permits. This way, each trainer has less to focus on during each session. This may be especially valuable when working with large animals, or with groups of animals that need to be separated with larger distances. Multiple trainers can always be faded out later in the process as animals learn to station for longer periods of time.

While some trainers may choose to use specific cues or intentional bridges while training a station behavior, these are often unnecessary and may complicate the process for new trainers. It can be a challenge to bridge one animal when working on training multiple animals. Animals are very capable of recognizing bridges that trainers use unconsciously. Reaching for a food cup, turning towards the animal, etc. can bridge an animal for going to or staying on a station. In the same way, trainers often provide cues for behaviors that they are unaware of, such as walking to a certain spot in the exhibit, setting down a food bucket, or putting down mobile stations. You may choose to use more obvious cues, such as a finger point or a tap on the station. However, over time, these cues can often be faded away as the animals learn the behavior and adjust to a routine.

Once animals learn reliable station behaviors, these can be used to train other husbandry behaviors. Animals can be stationed, and then individually called to a scale. They can then be sent back to their station, while another animal is weighed. This can simplify the weighing process, and also reduce the possibility of aggression. Mobile stations can be used to teach shifting behaviors, since animals can be called to their station inside holding or out on exhibit. Though it may seem basic, stationing may become your most valuable tool as a keeper and a trainer. When utilized well, it can have a large variety of applications that can simplify daily routines and assist in the training of more complex behaviors.

Zimbabwe's Rhinos Under Attack by Poachers

*By Margaret Moore, Development Officer
International Rhino Foundation, Yulee, FL
m.moore@rhinos-irf.org*

Just after dawn on February 16th, Sinikwe, a black rhino cow, and her 16-month-old calf were ambushed by poachers in the thick brush. Sinikwe escaped with gunshot wounds. Her calf was shot and killed – its horn hacked off with an axe minutes after its death. For weeks, Sinikwe regularly returned to her calf's carcass. The poachers staked out the dead calf, hoping to catch Sinikwe and kill her too.

But now, there is some good news. Rhino monitors from the Lowveld Rhino Trust (a local Zimbabwean organization supported by the International Rhino Foundation) staked out the site as well, and were able to protect Sinikwe from the poachers. And, on May 17th, they successfully captured and moved Sinikwe, her brother, and several other members of their extended family out of the high-risk area where they lived, and into a much safer conservancy – greatly increasing our ability to protect them from poachers in the future.

As the economic crisis in Zimbabwe deepens, we are witnessing a significant increase in poaching. Rhino poaching in Zimbabwe (home to the fourth largest population of Critically Endangered black rhinos in the world) has doubled in the past year. Eighty-eight of the country's nearly 800 rhinos – more than 10% of the population – were brutally killed by organized gangs of poachers in 2008, just for their horn. Actual losses are likely higher – these are only the documented poaching incidents. The slaughter has continued unabated this year, with at least 25 rhinos already killed in 2009.



Rhino poaching has now reached a 15-year high. These confiscated horns were removed from poached rhinos in Zimbabwe earlier this year.

(Photo: Lowveld Rhino Trust)

Rhino translocations are no easy feat. These expensive operations require the support of a team of vets, rangers and monitors; air support from a helicopter and a small fixed-wing aircraft for tracking and immobilizing the rhinos; and large trucks fitted with rhino crates and mounted cranes for transporting the immobilized rhinos.

With generous support from zoos, individuals and foundations, the International Rhino Foundation and partners launched the CRISIS Zimbabwe Campaign to raise funds for emergency operations in Zimbabwe, and to increase awareness about the need to combat poaching.

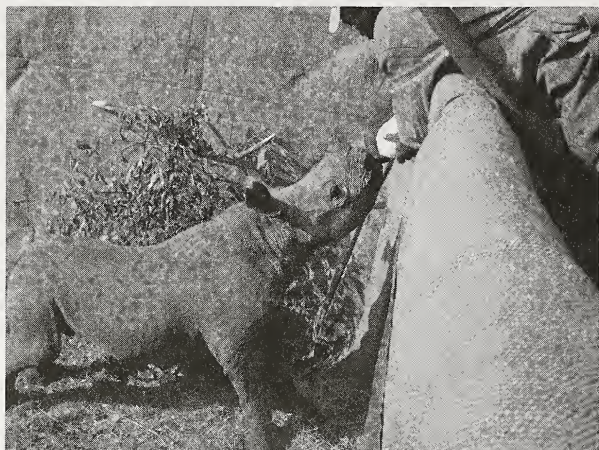
Thanks to the money raised by numerous committed individuals and organizations around the world, this summer our heroic team in Zimbabwe was able to move 45 critically endangered black rhinos out of areas where they were particularly vulnerable to poachers. It was a relief to rescue all 45 rhinos, but some deserve special mention.

Rosemary, a seven-year-old female, lost her mother, Myrtle, to poachers in November 2008 along with Myrtle's young calf, Mint. Myrtle's calf Basil was poached in December 2008, leaving

The IRF-supported Lowveld Rhino Trust is working to save Zimbabwe's rhinos from poachers by proactively translocating rhinos from high-risk areas to safer locations; treating rhinos with snare wounds and other injuries and returning them to the wild; helping authorities track, apprehend, and prosecute poachers; and intensively tracking and monitoring rhinos to ensure their safety.

The Trust is increasingly being forced to undertake emergency operations to rescue

Rosemary as Myrtle's only known offspring surviving in Bubiana Conservancy. When our teams found Rosemary, she was with Figtree, Marula's four-year-old calf. Marula and Myrtle were "best



friends" and always found close to each other or "babysitting" for one another's calves, so it is no surprise that their two offspring were together. We also were able to move both our local big heavies - Dozer and Ganya. Dozer had a number of new scars indicating he had been scrapping recently with Ganya. There was only one death on the operation - a year-old calf that had been badly wounded by poachers.

Lowveld Rhino Trust

And, since May, eight poachers have been killed in the Lowveld during armed confrontations with police, compared to four known rhino poaching losses. So for the moment at least, the numbers are in the rhinos' favor.

There is still hope for Zimbabwe's rhinos. Even though poaching has doubled over the past year, births in the Lowveld Conservancies still exceed deaths. During the recently completed translocation operations, our rhino monitors found several new calves! If we can successfully protect Zimbabwe's rhinos during the current crisis and pressure the government to crack down on poaching, then this species can have a bright future indeed.

Update: Greater One-Horned Rhinos in India and Nepal

By Dr. Susie Ellis, Executive Director
International Rhino Foundation, Yulee, FL
s.ellis@rhinos-irf.org

Rhino poaching worldwide has now reached a 15-year high – and rhinos in Nepal and some parts of India are virtually under attack by well-organized gangs of poachers that sell rhino horn on the black market. Nonetheless, there is some good news. Despite poaching losses, the population of Greater One-Horned Rhinos continues to increase, and the species was recently downgraded to Vulnerable on the IUCN Red List.

Greater One-Horned Rhino (*Rhinoceros unicornis*) populations now number between 2,800 and 2,850. This species is restricted to Nepal and the State of Assam in northern India. Although the population is increasing, poaching pressure is intense throughout its range. In 2008, 26 rhinos died at the hands of poachers in Assam and at least eight were poached in Nepal, where populations are highly fragmented and difficult to protect. Already in 2009, at least 17 rhinos have been poached in India and Nepal. Despite these losses, the species' population is stable. But, current protection and conservation measures must be continued and intensified to maintain population growth.

A Big Move – Greater One-Horned Rhinos Successfully Translocated in India

When the Greater one-horned rhino was downlisted from Endangered to Vulnerable, it represented a huge success story for a species that once numbered fewer than 20 individuals. However, more than 85% of the world's Greater one-horned rhino population inhabits Kaziranga National Park in Assam, India. Pabitora National Park holds about 100 rhinos -- the park's carrying capacity has been exceeded,

which leads to an increased risk of rhino-human conflict in buffer zone areas as animals move out of the park and into agricultural areas to forage for food. The International Rhino Foundation, in partnership with the Assam Forest Department, WWF-India and other NGOs, launched Indian Rhino Vision 2020 (IRV 2020) to reduce risks to India's rhino population by ensuring that the animals are spread throughout multiple parks with enough habitat to encourage population growth.

In April 2008, two male greater one-horned rhinos were successfully translocated from Pabitora Wildlife Sanctuary to Manas National Park in Assam -- the first time that wild rhinos have been translocated in India.



Two male greater one-horned rhinos successfully reintroduced to Manas National Park. (Photo: Aaranyak)

Both rhinos are in good health and are being monitored on a daily basis by trained park guards and monitors. Meticulous planning for the translocation, carried out under tight security, spanned several years. Under the guidance of veterinarians, conservationists and forest department officials, the two animals were immobilized and then transported 250 km (155 miles) in crates. The arrival of rhinos was heralded by local communities near the Park. A UNESCO-designated World Heritage site, Manas National Park is one of the nine biodiversity hotspots in India, and was home to several endangered species, including rhinos, before local political unrest in the late 1980s and early 1990s led to their eradication. Work is underway to restore Manas' former wildlife populations, with these translocations among the early steps.

To make sure that adequate security was in place before the move, IRF and partners built community support, provided vehicles, wireless sets and other equipment to guards, and helped build watch towers, bridges, and roads. Guards



Rhino release in Manas National Park (Photo: WWF-India)

are challenged by the curiosity of the two translocated males, who frequently venture into the park's fringe areas. One of the two rhinos wandered out of the park in late 2008, and traveled nearly 80 kilometers [49.7 mi.) during the monsoon season before the veterinary team could safely immobilize him and return him to the park. The IRV 2020 partners are now building a fence along the southern border of the park to prevent the translocated rhinos from moving into unprotected areas where they could be injured

or killed. With strong support and assistance from local communities, eight kilometers (4.97 mi.) of fencing along the border where rhinos stray most frequently will be completed by mid-October.

The next phase of rhino translocations (originally scheduled for March/April 2009) was postponed to allow time for the fence to be completed before more rhinos are brought into the park. Additionally, there have been some delays in obtaining the immobilization drugs needed for the translocations – only one zoo in India has permission from the government to obtain the drugs, and must import them on behalf of all zoos and protected areas in the country, including the IRV 2020 program. The IRV 2020 partners have made good progress in obtaining permission to begin importing the drugs needed for IRV 2020 through the State Zoo of Assam. The next set of translocations has been re-scheduled for November 2009, and we expect to have both the fence and the necessary immobilization drugs secured by that time. We plan to translocate 18 rhinos from Kaziranga and Pabitora to Manas later this year.

Experts Form Global Alliance for Amphibian Survival

A new coalition of organizations, the Amphibian Survival Alliance, is being established in an attempt to conserve the world's vanishing frogs, toads and salamanders. Threats to these species are numerous - a deadly fungus, habitat loss, pollution, pesticides and climate change. The alliance came together at the first Amphibian Mini Summit at the Zoological Society of London in late August. The group includes amphibian specialists working in the wild as well as those in zoos, aquariums and botanical gardens.

"If we want to stop the amphibian extinction crisis, we have to protect the areas where amphibians are threatened by habitat destruction," says Claude Gascon, co-chair of the IUCN Amphibian Specialist Group. "One of the reasons amphibians are in such dire straits is because many species are only found in single sites and are therefore much more susceptible to habitat loss."

Amphibian scientists say that the alliance is needed because amphibians are the most threatened group of animals in the world. After thriving for over 360 million years, one in three of the 6,000 recognized amphibian species are now at risk of extinction and as many as 122 species have gone extinct since 1980.

"The world's amphibians are facing an uphill battle for survival," says James Collins of Arizona State University, co-chair of the IUCN Amphibian Specialist Group. "Infectious diseases, habitat loss, climate change, introduced species, commercial use and pollution all affect amphibian survival. By far the worst threats are infectious disease and habitat destruction, so the Alliance will focus on these issues first," he said.

Curbing the spread of amphibian chytrid fungus will be a top priority for the amphibian experts. Recent preliminary evidence, described in the April issue of the journal "BioScience," suggests that individual amphibians can develop resistance to the fungal disease chytridiomycosis. The experts will focus on identifying the presence of naturally-occurring bacteria that confer so-called acquired immunity to the killer frog disease, and investigating their use in managing the disease in other species. So far the bacteria have only been found on a few species and more research is needed. Anti-fungal drugs to combat the deadly disease, exploring resistance in captive-bred populations and translocations all need to be investigated.

The alliance will explore ways of preventing the spread of the fungus to new places, such as Madagascar, which so far shows no evidence of the presence of the amphibian chytrid fungus. "Amphibians have so much to offer humans," says Simon Stuart, chair of the IUCN Species Survival Commission and convenor of the Amphibian Mini-Summit. "Many have an arsenal of compounds stored in their skin that have the potential to address a multitude of human diseases. However, opportunities are being lost, such as the Southern Gastric Brooding Frog, which could have led to the development of a medicine for human peptic ulcers, had it not gone extinct," Stuart said. "We simply cannot afford to let this current amphibian extinction crisis go unchecked."

The new Alliance will work with partners to implement the Amphibian Conservation Action Plan and to raise the profile of amphibians in 2010, the International Year of Biodiversity. In September 2005, the Amphibian Conservation Summit, held in Washington, DC, placed a \$400 million price tag on its newly drafted Amphibian Conservation Action Plan, a figure that was again mentioned in July 2006 when the Amphibian Survival Alliance was first proposed by 50 of the world's amphibian researchers.

At the Amphibian Mini Summit in August, Gascon said that at most 2% of that figure has been acquired and disbursed, and participants reported that fund-raising has been a struggle.

One of the primary activities recommended in the Amphibian Conservation Action Plan is a captive breeding strategy called Amphibian Ark. The World Association of Zoos and Aquariums has joined with the Conservation Breeding Specialist Group and the Amphibian Specialist Group to rescue priority species and bring them into “protective custody” in zoos, aquariums, botanical gardens research centers for safekeeping and breeding.

The rescued species will be released into the wild when the original threats have been controlled. One example of such a program is the El Valle Amphibian Conservation Center in central Panama. Several zoos and aquariums, academic institutions, and international conservation organizations have joined to establish this new facility which holds several hundred native Panamanian frogs, toads, and salamanders. The goal is to maintain as many as 1,000 animals representing some 40 species.

Amphibian declines have been documented in North and South America, Europe, Asia and Africa. Several species in the U.S. Pacific Northwest are listed as candidates for the federal Endangered Species List. More than a dozen species have disappeared from Australia in recent years.

“This is part of an overall biodiversity crisis, and amphibians seem to have been hit the hardest of all vertebrate species,” said Andrew Blaustein, a professor of zoology at Oregon State University, one of the pioneers in this field, who first helped document amphibian declines almost 20 years ago. “The long-term ecological repercussions of their decline could be profound, and we have to do something about it.”

The Amphibian Survival Alliance is supported by:

- Alliance for Zero Extinction
- Amphibian Ark
- Arizona State University
- Chester Zoo North of England Zoological Society
- Chicago Zoological Society
- Conservation International
- Deutsche Gesellschaft für Herpetologie und Terrarienkunde, DGHT
- Frankfurt Zoological Society
- International Union for the Conservation of Nature, IUCN
- James Cook University
- Museo Regionale di Scienze Naturali, Torino
- Oro Verde Foundation for the Conservation of Tropical Forests
- Partners in Amphibian and Reptile Conservation
- Smithsonian Institution
- Society for Tropical Ecology
- The Prince’s Rainforests Project
- University of Maryland
- Washington State University
- World Association of Zoos and Aquariums
- Zoo Atlanta
- Zoological Society of London
- Zoologischer Garten Frankfurt



Source: Environmental News Service via EcoFactory.com 8/27/09

The Key Largo Woodrat Program at Disney's Animal Kingdom

By Tom Dillenbeck, Animal Keeper
Disney's Animal Kingdom, Lake Buena Vista, FL

While large and popular mammals such as elephants, primates, and carnivores are relatively well-represented on the conservation agenda, most of the world's mammalian diversity is made up of smaller and less charismatic species whose conservation needs have not always been considered (Entwistle and Stephenson, 2000). The order Rodentia, for example, contains over 2000 species and accounts for about 42% of mammalian diversity (Wilson and Reeder, 2005). Although 51% of terrestrial mammal species known to have become extinct in the past 500 years have been rodents (Ceballos and Brown, 1995), rodent declines have been largely ignored while conservation programs have targeted more popular taxa (Gippoliti and Amori, 1998). By targeting smaller mammals such as rodents for *ex-situ* breeding programs, zoos may be able to stretch precious conservation dollars by focusing attention on animals that are less expensive to maintain, typically breed readily, and are often easier to reintroduce to the wild than larger mammals (Balmford, 2000).

An Endemic Rodent and a Unique Ecosystem

The Key Largo woodrat (*Neotoma floridana smalli*) is the southernmost subspecies of the Eastern woodrat (Hersh, 1981). Although it probably once occurred in appropriate habitat throughout the island of Key Largo, Florida, it is now restricted to the northern third of that island and has been listed as endangered by the U.S. Fish and Wildlife Service since 1984 (U.S. Fish and Wildlife Service, 1984). Like many native animals in Florida, the Key Largo woodrat has lost a lot of



Female woodrat (*Neotoma floridana smalli*) in an off-exhibit enclosure at Disney's Animal Kingdom.

(Photo: Disney's Animal Kingdom)

its habitat to human encroachment in the form of real estate and tourism development. Fortunately, a large percentage of what habitat remains is protected in the Crocodile Lake National Wildlife Refuge and the Dagny Johnson Botanical State Park, which together contain the largest remaining tracts of tropical forest, known locally as hammocks, in the continental United States (Scott, 2004). The hammocks of Key Largo are unique and contain many tree species near the northern limits of their distribution, including gumbo-limbo (*Bursera simaruba*), pigeon plum (*Coccoloba diversifolia*), West Indian mahogany (*Swietenia mahagoni*), strangler fig (*Ficus aurea*), and poisonwood (*Metopium toxiferum*) (Scott, 2004; Scurlock, 1990). Another endangered endemic rodent,

the Key Largo cotton mouse (*Peromyscus gossypinus allapaticola*) shares the hardwood hammocks with the Key Largo woodrat (Scott, 2004).

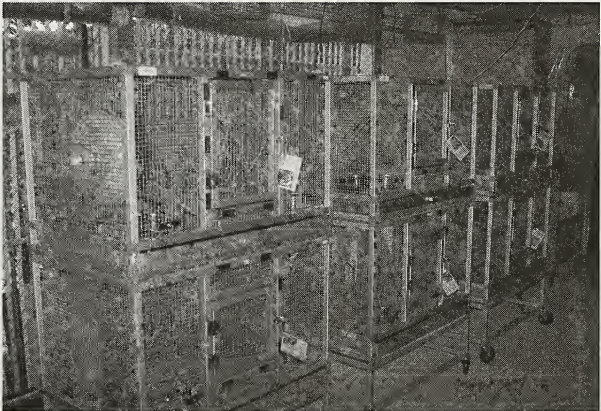
The wild population of Key Largo woodrats has declined in recent years for reasons still unclear, but predation by feral cats, loss of young to fire ants, infection with raccoon roundworm, and competition from introduced black rats have all been suggested (Scott 2004). Another potential threat has recently been revealed. In 2007 a Burmese python (*Python molurus bivittatus*) was found in the Dagny Johnson Botanical State Park, and the necropsy revealed the remains of two Key Largo woodrats (Greene et al, 2007). This exotic snake already has an established population in Everglades National Park but this was the first record of it in the Florida Keys (United States Geological Survey, 2009).

Part of the recovery effort for the Key Largo woodrat involves the establishment of captive breeding colonies and the eventual release of captive-born offspring into the wild (U.S. Fish and Wildlife Service, 2003).

The Key Largo Woodrat Colony at Disney’s Animal Kingdom

In 2005 Disney’s Animal Kingdom (DAK) received 6.5 Key Largo woodrats from a colony housed at Tampa’s Lowry Park Zoo. The woodrat program at DAK is multi-faceted and involves many inter-team partnerships. Key Largo woodrats are nocturnal, and the husbandry of the colony, appropriately, is the responsibility of the Night Team. The Night Team also introduces woodrats for breeding sessions and assists the Wildlife Tracking Center (WTC) Team with various tasks. The WTC Team partners with husbandry teams when endocrine monitoring and behavioral research are components of the project. Urine samples are collected periodically and processed in the WTC in an attempt to gain a better understanding of woodrat reproductive cycles. In addition to endocrine studies, the WTC Team spends many hours reviewing videotape and DVR footage of both adult woodrat behavior and woodrat pup growth and development (Alligood et al, 2008; Alligood et al, 2009). The Night Team also partners with one of the day teams, who checks on the woodrats during the daytime and monitors environmental conditions in the woodrat compound.

The Key Largo woodrat compound at DAK is located in an off-exhibit area of the park and is not accessible to park guests. The compound, measuring 16’x 32’ [4.87m x 9.75m], is completely enclosed with 22-gauge ¼-inch [0.635cm] mesh supported by 1-inch [2.54cm] square aluminum framework. The ceiling consists of ¾-inch [1.905cm] thick foam insulation panels and the roof is constructed of white polycarbonate corrugated panels mounted on wood rafters. The compound is supplied with electricity and with water. In addition to the woodrats, the compound contains supply cabinets, a video cabinet, and containers for browse and enrichment items.



Since the annual day length cycle in central Florida is similar to that experienced in Key Largo, an effort is made to limit the woodrats’ exposure to artificial supplemental lighting. For this reason artificial lighting in the compound is usually limited to six ceiling-mounted florescent fixtures in which the bulbs are covered with red plastic. The red light emitted allows the keepers to observe the woodrats after dark but does not appear to disturb the woodrats. Due to short day length in the winter, additional artificial lighting is necessary to complete the husbandry routine, and is provided by fluorescent lights. The temperature inside the compound fluctuates with the outside temperature but can be regulated to some degree, and an attempt is made to mimic the environmental conditions found in the hammocks on Key Largo. Plastic tarps mounted at the top of all of the compound’s walls are lowered during cold weather and are rolled up when they are not needed. Portable heaters are used in conjunction with the tarps during extreme cold spells. Extreme heat inside the compound during the summer is another concern. Since the interior of a mature hardwood hammock is shady, an attempt is made to simulate this inside the woodrat compound. While the roof provides protection from the midday sun, potted trees around the compound perimeter protect the woodrats from direct sunlight during the morning and afternoon. Air circulation inside the compound is augmented by four oscillating fans mounted to the walls, and during very hot weather refreezable ice packs are placed in built-in shelves underneath the woodrat nest boxes.

The Key Largo woodrat compound, an off-exhibit area at Disney’s Animal Kingdom. (Photo: Disney’s Animal Kingdom)

The woodrats are housed singly in enclosures which may be stacked three high and which are set on rolling stands. The rolling stands allow the keepers to easily move the woodrats around the compound as husbandry or breeding needs dictate. The woodrat enclosures are custom-built and have been modified as the husbandry, research and breeding programs have evolved. Modifications to the enclosures have included the addition of nest boxes, the installation of camera bulkheads for video monitoring and recording purposes, and the addition of connecting tubes so woodrats can be introduced to each other for breeding.

Husbandry activities begin at 1800hrs and involve two keepers from the Night Team. Daily husbandry involves cleaning the enclosures, preparing diets, feeding the woodrats, providing drinking water in both stainless steel bowls and plastic water bottles, and record keeping. Keepers provide the woodrats with a variety of natural materials, including sticks of various sizes, palm fronds, and Spanish moss, to encourage nest building and other natural behaviors. For enrichment, food items are placed in wicker balls or bird nests suspended from the ceiling of the enclosure or tied to its side, and novel items such as grass flats and pine cones are provided on a regular basis. Plastic exercise wheels are given to the woodrats in rotation. Food caching behavior is monitored and cached food items are regularly removed from the enclosures and nest boxes. An additional check on the woodrats takes place at 0400hrs the next morning. In addition to daily husbandry, all of the woodrats are weighed monthly.

Breeding and pup development

The Night Team is also responsible for pairing the woodrats for breeding. Pairing recommendations are made by the Fish and Wildlife Service and are based on genetic analysis. The decision of whether or not to introduce a recommended pair for breeding on any particular night rests with the Night Team and is based on the behavior of the woodrats that evening (Alligood et al, 2009). The woodrats that may be paired are given limited access to each other through the wire connecting tube between their enclosures. The connecting tube is fitted with a shift door at each end; the door on either the



Tube between enclosures in off-exhibit area, used to introduce woodrats to each other for breeding.

(Photo: Disney's Animal Kingdom)

male's side or the female's side is kept closed until pairing time, providing one of the woodrats with exclusive access to the connecting tube and allowing it to visit the other woodrat at will. Prior to pairing, the keepers observe and record the behavior of both the male and female. Through careful analysis, the team has learned which behaviors are good predictors of mating (Alligood et al, 2009). Signs of interest by the female woodrat include multiple tube visits in rapid succession, gentle interactions with the male through the shift door, and raspy vocalizations. Signs of interest by the male include raspy vocalizations and spending a lot of time interacting with the female through the shift door.

Courtship often begins with one or more bouts of olfactory investigation, during

which both woodrats may stand face to face on their hind legs in a "boxing" position. Sometimes mating will take place almost immediately upon pairing, although a longer session involving olfactory investigations, scent marking, and pursuits is more typical. If the female woodrat is receptive to the male's advances she eventually assumes a lordotic position and the male will mount her. Up to five bouts of copulation have been observed during a breeding session. A breeding session ends when

the male woodrat loses interest or the female woodrat indicates that she has had enough of the male's advances, and it is at this time the woodrats are separated. If a pair breeds, they are introduced again the following night, and on subsequent nights as long as they show interest. Female woodrats are usually only tolerant of the company of males during fertile periods, and by pairing woodrats only on nights that the keepers feel they are receptive, agonistic encounters can usually be avoided. There is always the danger that a pairing will result in a scuffle though, and woodrats can inflict serious bite wounds on each other. For this reason the woodrats are watched closely during pairings, and two keepers are always present and ready to separate the woodrats if necessary. Female woodrats that are thought to be pregnant and are nearing their due date are usually not paired again until after parturition or the birth window has passed.

Woodrat gestation is between 37 and 40 days, after which the female gives birth to between one and three pups, with two being the average litter. Woodrat pups are left with their mother and a hands-off approach is taken while the pups are young. The roof of the nest box is fitted with an infrared camera that records pup development and behavior around the clock. It is with this footage that WTC Team members have been able to determine some developmental milestones (Alligood et al, 2008). Woodrat pups are altricial and spend the first few days of life nursing almost constantly. Around their 9th day their eyes open and around day 20 they may begin exploring outside the nest and eating solid food. When the pups are 19 days old, and again when they are 30 days old, they are caught, briefly examined, weighed, and returned to their mother. On day 65 they are implanted with AVID® microchips, radiographed, weighed, measured, positively sexed, and examined by a veterinarian. Blood is drawn at this time for genetic analysis. After this exam the pups are usually given their own enclosures and do not have access to their mother again.

Hope for the future

The Key Largo woodrat program has presented opportunities for involvement beyond the husbandry, breeding, and research programs at DAK. For the past three years DAK cast members from the Night Team and the WTC Team have spent time on Key Largo assisting with a field study, the goal of which is to determine the best methods to assess and monitor the population of wild woodrats. During the 2007 field season, two additional wild woodrats were captured and added to the colony at DAK to increase the genetic diversity of the breeding group. Guest education is another important component of the program, as public awareness of the Key Largo woodrat is very low. Although the woodrats at DAK are kept off-exhibit, an educational display that includes video footage of the woodrats has been set up at the WTC guest viewing window at DAK. The plight of the Key Largo woodrat presents opportunities for teaching visitors to Florida and local residents alike about the value of native wildlife, the detrimental effects of introduced species, habitat loss, and much more, while raising the profile of a unique member of Florida's natural community.

The Key Largo woodrat program at DAK is rewarding for all involved, but a self-sustaining assurance colony and a successful captive breeding program are only part of the recovery picture. The long-term recovery of the Key Largo woodrat will depend on identifying and controlling the factors that have contributed to its decline in its native habitat in the first place; it is only when that issue has been effectively addressed, and woodrats born at DAK are released onto Key Largo, that the true success of this program can begin to be measured.

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CONSERVATION STATION

Making the Holidays a Little Bit Greener

By the AAZK Conservation Committee

The holiday season is a time of celebration. A time to spend with friends and family, a time to give thanks for good fortune, a time to forget about the stress of everyday life and a time to have some fun with loved ones. The holiday season is also a time of excess. In fact, according to the Medical University of South Carolina, waste output increases over 25% during the holiday season. The increase in travel, by land or by air, pumps even more carbon dioxide and pollution into the already fragile environment.

Thinking about all this excess is enough for the environmentalist in all of us to cringe and feel guilty for every piece of candy we hand out or every glass of champagne raised in toast. The conservationist in us would say, "Something has to be done about all this overindulgence! Cancel Hanukkah and Christmas! Outlaw Trick-or-Treating! Ban gift giving entirely!" But the rational human being in us all has to admit that we really enjoy spending time with loved ones, and all the excess that goes along with it. So where is the "in between"? How can we still consider ourselves environmentally friendly conservationists while partaking in the festivities? More importantly, how can we fit our green practices into our holiday celebrations without our families disowning us for making them eat by candlelight with no heat on in the Midwest on Christmas or ending up with egg on our houses for handing out a hearty "Happy Halloween" instead of a treat?

The AAZK Conservation Committee has put together some ideas for the "greening" of your holidays. Try a few things this year from the list and add a few more for next year. By adopting even one of these ideas, you CAN make a difference in the amount of waste this holiday season. So relax, have a great AND GREEN holiday season.

Scream GREEN on Halloween!

BYOC (Build Your Own Costume)! Use old clothes and household items to construct a creative and original costume. If you need to purchase items, shop at Goodwill or another local second-hand store.

Reuse your treat collector! Find a sturdy reusable bag, second-hand plastic jack o'lantern or build your own to use year after year.

Walk instead of drive! Enjoy the night and save on gas and pollution.

Buy PALM OIL FREE and/or organic treats! Check ingredient labels before buying at your local grocery stores. Try to look for minimal packaging if possible.

Get the most out of your pumpkin! Not only are they good for decoration, but also pumpkins can be composted to aide with garden growth.

Use black and orange CFL bulbs or LED's!

Decorate your house with recycled items! Hit up second hand stores, your own trash and recycling, or the dump and be creative to make your house look spooky and scary.

Decorating with GREENERY

Decorate with nature! Use organic flowers or seasonal flowers such as hyacinth, mimosa, narcissus, amaryllis and poinsettias. Make centerpieces from twigs, squash, acorn, apples, and leaves. Use real evergreen swags, garlands, and wreaths. Create accents with dried berries, twigs, small logs, fresh fruits and nuts.

Create natural napkin rings! Tie napkins with raffia and tuck in some cinnamon sticks – guests can dip cinnamon sticks in hot apple cider later.

Reuse and repurpose! Save all of your old decorations for the next year or get creative and make them into brand new decorations. Or go vintage and buy decorations from consignment stores, thrift shops, and antique stores, or buy homemade from craft bazaars.

Get a real tree! (Unless you already have a fake one, then keep using that one) Real trees are grown in farms to be cut and are replaced. Fake trees are filled with plastic, PVC, and harsh chemicals. They release toxic gases when they are new and cannot be recycled. Real tree can be recycled but make sure they are from a pesticide-free farm.

Use LED lights! They use 80% less energy and last about 20 years. In one year, you should make back the extra money you paid in energy savings. For outdoor lighting use solar powered LED light strands.

Light candles made of soy and beeswax! They are renewable and sustainable, burn clean and are better for you. Traditional candles are made from paraffin wax which is petroleum based.

Make your own decorations! Try popcorn or berry garlands, flour dough ornaments or other edible decorations. Repose unwanted items to make new ornaments.

Give some GREEN this holiday

Think ahead! Plan your holiday gift giving ideas starting December 26th the year before. That way you can buy your gifts all year long without make special trips at the last minute. Keep this in mind during summer festivals, garage sales, and craft shows.

Make it yourself! Make use of your artistic talents by knitting, baking, or painting to make your gifts. If you are artistically challenged give a gift of your services such as babysitting, massages, or snow-shoveling.

Shop locally! Supporting locally owned stores not only helps your local economy but also helps to cut down on waste caused by shipping products across the world. Look for local shops that support local artisans and craftsmen.

Buy/give recycled! Look for items made of recycled materials. Shop at Goodwill, flea markets, and garage sales for treasures. Remember it is OKAY to re-gift, especially when you know the recipient will really enjoy the gift!

Scrap the idea of driving from mall to mall multiple times and the pile-up of paper wasting catalogs! Visit www.catalogchoice.org - This is a free service that lets you reduce unwanted mail and choose the brands you want to hear from by requesting electronic catalogues.

Buy gifts that will get used! Find gifts that the recipient will want and not ones that will go to waste or get thrown away. When in doubt, gift cards to local shops and restaurants are a good choice and many can be personalized or paired with a homemade card or craft. Or buy a consumable gift such as tea, fair trade coffee, or homemade jellies.

Shop with an earth-conscious attitude! Support stores that make an effort to be environmentally conscious and those that support environmental and social causes. Pay attention to packaging. Look for items that are minimally packaged, organic and made in the United States. Visit treehugger.com, planetgreen.discovery.com, www.ecoexpress.com, www.eco-artware.com and green.yahoo.com/gift-guide for lists of items, stores and companies that offer green gifts.

Support environmental causes this holiday! Give the gift that gives to others. Buy gifts

from organizations such as the **Center for Ecosystem Survival (CES)** which is dedicated to creating global partnerships to inspire participation in the preservation of biological diversity through ecosystem protection worldwide (www.savenature.org) or **Heifer International** which gives gifts of regionally appropriate livestock (cattle, pigs, camels, honeybees, ducks, etc.), as well as tree seedlings to those in need around the world. (www.heifer.org). Also see the November 2008 AKF for more ideas

Give the gift of knowledge! Make sure to share how your gift is environmentally friendly with the recipient and pass on your ideas with family and friends to recruit more people to make their lives a little greener. Give items that encourage loved one to be eco-friendly such as re-usable grocery bags, energy efficient electronics, or seeds to start a garden.

Send some GREEN

Use eco-friendly, biodegradable, and recyclable products as shipping supplies! Use eco-friendly packing tape and biodegradable packing peanuts or use newspaper and shredded paper for packing material.

Save and re-use old boxes to ship gifts! Wrap them in paper grocery sacks if needed and put multiple items together in one box instead of sending individual boxes for each present.

Ship gifts early and use ground shipment! Rush delivery uses more resources and air shipping causes more pollution.

Find a green shipper! Inquire about what type of green practices each shipper uses such as fuel efficient driving methods, automatic tire inflation systems and electronic engine controls. In 2007, DHL and US Postal Service were the top ranked green shippers.

Make your own wrapping paper! Use paper saved from last year, newspaper, magazines, old maps, old sheets of paper and paper bags. Make it more personal by having the kids color on it or decorating it with magazine pictures or paint.

Get creative with tissue paper! Use old scarves, towels, newspaper or magazines as tissue paper.

Make your own gift tags! Use cards from last year to make fun and personal gift tags.

Offset your shipments carbon footprint! Fund the development of renewable energy through www.greenshipping.com.

Send emails instead of mailing a letter! Personalize the emails by setting up a link to a blog with pictures or stories of the past year. If you must send a letter, fold it in half and address it on the back instead of using an envelope. Make your own cards, buy recycled cards made in the United States or cards made by local artists.

Save some GREEN when traveling

Do your research! Flying to your holiday destination produces loads of pollutions as does driving there too. There is still some debate about which is the best option and it is very dependent on the locations you travel to and from. Look into alternative options such as trains and buses or renting a hybrid car instead of taking the SUV. Some airlines are now adopting greener practices that may make it friendlier to fly if the distance is over 500 miles. There are also carbon offsetting options available with some airlines.

Pick a central location! Is the whole family flying across country to meet? Try to pick somewhere to get together that will produce the shortest amount of travel as possible.

Cut down on emissions! Rent a hybrid or economy-sized car when traveling. Try to use public transportation or walk as much as possible. Carpool whenever you can.

Travel light! Pack a minimal amount of items in your luggage to lighten the load on the plane. Bring your own empty reusable water bottle to fill after the security checkpoint.

Be picky when picking a hotel! Choose a hotel with sound environmental policy and one that is close to public transportation.

Treat your hotel like it is your house! Reuse towels and request that sheets not be changed daily and rooms not be cleaned daily. Remember your “at home” energy savings practices like turning off lights, unplugging electronics, taking short showers, and keeping the temperature of the room appropriate.

Visit Independent traveler.com! Read up on how you can be environmentally friendly while traveling.

Throw a GREEN party

1. **Rent!** Don't buy new items for just one party when you can rent everything from tables, chairs, and dishes to popcorn, margarita or karaoke machines.
2. **Repurpose!** Use household items for party necessities. Bandanas can be used for inexpensive, reusable napkins and small ornaments can be used as glass markers.
3. **Use washable dishware,** borrow extra dishes if you can and use washable unbleached napkins. **If you must, buy environmentally-friendly compostable tableware!**
 - Recycline - plates and bowls made from biodegradable sugar cane.
 - Cereplast - Utensils of biodegradable bio-plastic (80% corn-based starch and 20% green fillers).
 - Greenhome - Sells straws made from PLA, a corn based bio-resin.
4. **Use items made from renewable resources!** Buy items made from recycled materials, bamboo, organic and unbleached cotton.
5. **Make a one cup rule!** Provide markers at the drink counter to write on cups or charms for glasses to help guests keep track of their cups.
6. **Turn down the heat and turn off the lights!** Conserve energy by turning down the heat before guests arrive. The extra body heat, candles (beeswax) and lights will warm the room. If you live in a warm climate bring in your outdoor solar lights and use ceiling fans to cool the room.
7. **Make GREEN party favors!** Give guests two beeswax or soy taper candles with a tag that reads, “May your holiday be bright.” Make gifts of herbs in 4” pots. Tie a raffia ribbon around each pot to add a festive touch. Bake edible party favors, such as cookies or truffles and attach the recipe for them. Make a mixed CD of your favorite holiday (or non-holiday) music.

Cook and eat GREEN for the holidays

Use re-usable bags when grocery shopping! Bring your own bags instead of using plastic or paper. Keep them in your car so you don't forget.

Make a list! Aim to keep shopping for the holidays down to one trip by making a list ahead of time of everything you will need for the holidays.

Buy local and organic! Shop at stores that promote environmentally conscious practices and support local farmers. Make vegetarian dishes or buy free-range meat.

Shop at farmer's market! Depending on where you live, some farmer's markets are open year round.

Buy food that is in season! Stay away from food that has to be shipped in because it is out of season in your area.

Buy items with minimal packaging! Try to buy in bulk to reduce packing.

Buy canned or glass bottle beverages! Cans and glass are easier to recycle, take less energy to make and do not use as many toxins as plastic.

Provide clearly marked recycling containers! Encourage guests to recycle by having recycling and compost bins clearly marked.

Keep your waste GREEN

REUSE, REUSE, REUSE! Don't just toss items into the garbage. Think about how you can reuse them in the future. Pack up decorations carefully to keep them from breaking and repurpose broken decorations into new items like craft projects, Christmas collages or ornaments. Open presents carefully and save wrapping paper for next year or to use as scratch paper. Save boxes, bows and ribbons for reuse. Shred wrapping paper for use as confetti on New Year's Eve.

RECYCLE! Make sure you are up to date on what can be recycled in your area or know where to take items to be recycled. Wrapping paper, cardboard packages, some plastic packaging, Christmas trees, cards, etc. can all be recycled.

Send food home in reusable containers! Instead of using plastic bags or plastic wrap, have reusable containers available to send leftovers and cookies home with loved ones. Also use aluminum foil instead of plastic wrap to cover containers that don't have lids.

Use environmentally friendly cleaners! Look for biodegradable and chemical-free cleaning agents. Avoid antibacterial cleaners and check for palm oil in soaps.

Compost! Set up a compost bin for leftover food and scraps that cannot be saved.

Think enrichment! Collect items that can be used for animal enrichment. Make sure items are species-appropriate and approved before giving them to the animals! Boxes, tissue and wrapping paper, cardboard tubes, paper bags, Christmas trees, old clothing and unwanted toys are all things that may make appropriate enrichment items.

Donate unused or unwanted items! Extra food from large gathering can sometimes be donated to local food banks or shelter, especially if the items are in unopened packages. After the holidays, pick through your possessions for unwanted items and donate them to the local Goodwill or Salvation Army.

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Be sure to check out the *Members Only* section of aazk.org for "The Responsible Consumers' Conservation Gift Guide". This resource, originally published in the November 2008 edition of *Conservation Station*, may help you find the perfect green gifts for your friends, co-workers and family!

Our Last Chance to Save the Rarest Large Mammal on Earth *Reintroducing Northern White Rhinos in the Wild*

By
Elodie Sampéré, Ol Pejeta Conservancy
Kenya, Africa

The history of northern white rhino (*Ceratotherium simum cottoni*) conservation has been a difficult one, characterised by missed opportunities. But in an unprecedented partnership, the Ol Pejeta Conservancy, the Lewa Wildlife Conservancy, Dvur Kralove Zoo in the Czech Republic, non-profit organization Back to Africa, and Fauna and Flora International are joining forces in a last attempt to save the northern white rhino from extinction. This is a chance to break the cycle and hold out a lifeline for what is the most critically endangered large mammal on the planet.

Tomorrow Will Be Too Late

The northern white rhinoceros is the most critically endangered rhino subspecies and the most endangered of all the world's mammals. Northern white rhinos used to range freely over parts of Uganda, Chad, Sudan, Central African Republic and the Democratic Republic of Congo. As recently as 1960, significant numbers still remained, but the situation has deteriorated rapidly since then. Wholesale slaughter for horn, hide and meat has driven the northern white rhino to the very brink of extinction. Until recently, the only known wild northern white rhino population was clinging to



survival in Garamba National Park, situated in northeast Democratic Republic of the Congo, but this area continues to be ravaged by civil war and armed conflict, with devastating consequences for the wildlife and the people assigned to protect it. There has been no sign of the four rhinos since 2007.

Africa is where the northern white rhinoceros belongs. It's time to give these last surviving representatives of their subspecies a taste of the lush tropical grasslands and wide, open spaces in which their ancestors lived.

Photo: © Ol Pejeta Conservancy

Inaction is Not an Option

In recent decades the Garamba National Park population did manage to crawl back to approximately 30 animals, but then crashed to the four animals which have not been seen for the last few years. There was a brief opportunity to translocate some of these animals to a secure conservation area before this crash, but the initiative failed. To all intents and purposes, the northern white rhino is now extinct in the wild.

The last eight northern white rhinoceros believed to be left in the world are currently all held in captivity. Despite the best efforts of captive breeding programs, the subspecies has not yet been given the lifeline it needs. Whilst the survival rates of captive white rhinos are good, rates of reproduction are low. It has been nine years now since a northern white rhino was born in captivity. Evidence points to the fact that the lack of natural diet and habitat and unusual social conditions experienced by captive rhinos may be critical factors in their failure to breed at a sufficiently rapid rate.

The only captive individuals still capable of breeding reside in Dvur Kralove Zoo in the Czech Republic. The Zoo's two males and two females represent the last hope of survival for the entire

subspecies. The consensus among the world's leading rhino specialists is that reintroducing these four captive animals to their natural habitat may represent the best, if not the only hope for the future of the northern white rhino. However, the window of opportunity is closing rapidly. The breeding potential of the remaining rhinos is diminishing with each passing day.

A Lifeline for One of Africa's Most Charismatic Animals

Dvur Kralove Zoo has now generously approved the translocation of its captive rhinos to a safe site in the wild in East Africa. As well as full protection, this will provide the best possible breeding conditions by giving the four rhinos access to tropical African grasses and a more natural setting within a larger conservation area. Back to Africa, which has developed a very productive working relationship with the zoo, has a proven track record in successfully translocating and reintroducing zoo-bred animals into the wild.

The Ol Pejeta Conservancy in Kenya has been identified as the location with the most suitable habitat, climate, security and infrastructure to give the rhinos their best, and last, chance of breeding successfully

An Encouraging Historical Precedent

Once widespread in southern Africa, by the beginning of the 20th century the southern white rhinoceros (*Ceratotherium simum simum*) was on the verge of extinction, reduced to a single population of less than 50 animals. By 1997, after years of careful protection and a series of translocations, numbers had increased to over 13,000 individuals spread across almost 250 discrete wild populations. The southern white rhino is now widely distributed across South Africa, Botswana, Namibia, Swaziland and Zimbabwe, with additional, smaller populations in countries outside its historic range. The recovery of the southern white rhino is one of the greatest conservation success stories of the last century.



The vast 90,000-acre Ol Pejeta Conservancy is located between the northern slopes of Mt. Kenya and the Aberdares. (Photo: © Ol Pejeta/Sandra Hill)

Significantly, the breeding success and rate of population growth of southern white rhinos in the wild has far exceeded that of their counterparts in captivity. Whilst captive breeding programs have failed to increase numbers, well-protected wild populations in South Africa's Kruger National Park, for example, have grown by an average of over 8% per year. It is hoped that we can replicate this success with the northern white rhino on the Ol Pejeta Conservancy.

Africa is where the northern white rhinoceros belongs. It's time to give these last surviving representatives of their subspecies a taste of the lush tropical grasslands and wide, open spaces in which their ancestors thrived. We fervently hope and believe that the secure, stress-free environment on the Ol Pejeta Conservancy will hold the key to their survival.

The Ol Pejeta Conservancy, Kenya – A Perfect Location

The vast 90,000-acre Ol Pejeta Conservancy is located between the northern slopes of Mt. Kenya

and the Aberdares. It comprises a mosaic of grass plains, wooded grassland, acacia woodland and evergreen thicket. This productive mix of habitats supports elephants, giraffe, and plains game. Formerly a cattle ranch, Ol Pejeta was bought by Fauna & Flora International in late 2004 with the generous support of the Arcus Foundation. Ownership was subsequently transferred to the newly created Ol Pejeta Conservancy, which now benefits from the support of a network of partners, local political figures, community leaders and conservation groups.

The African Rhino Specialist Group at IUCN (The World Conservation Union) and other experts have endorsed the choice of the Ol Pejeta Conservancy. The location is the conservation equivalent of an ideal home for translocated rhinos and has a number of distinct advantages:

- Ol Pejeta is less prone to drought and less vulnerable to poaching than other proposed sites. Moreover, it is closer to the original range of the northern white rhino, and in particular to Uganda, a former stronghold of the subspecies. The location of Ol Pejeta will facilitate any future translocation of rhinos to other safe areas, in the rhino's former range
- The Conservancy has relevant experience and knowledge – it now holds the largest black rhino population in East Africa and is an important national resource for the restocking of other areas
- Rhinos are often kept in holding pens or 'bomas' for a minimum period after translocation, and much of the necessary boma infrastructure is already in place in the conservancy, ready to accommodate the translocated white rhinos.
- Technical support can be offered by the nearby Lewa Wildlife Conservancy, which is currently among the best protected and monitored of Africa's rhino reserves. The reserve will benefit from what has been described as 'Rolls Royce' security, including 24-hour surveillance



Rhinos on the Lewa Wildlife Conservancy benefit from extremely high quality security, including 24-hour surveillance. Technical support will be given to the Ol Pejeta Conservancy to protect the northern white rhino. (Photo: © Daryl & Sharna Balfour)

- In view of the small size of the remaining breeding population of northern white rhinos, it is imperative to aim for rapid population growth, in order to avoid so-called 'genetic drift' and minimize the risks of inbreeding. Ol Pejeta has already proven to be successful at achieving this growth - many of the populations of southern white rhino currently held in Kenya have been growing at rates above 9% per year

An Unrepeatable Opportunity

First and foremost, the irreversible loss of this subspecies would

represent a failure of the imagination. We have an unrepeatable opportunity to bring the northern white rhinoceros back from the brink, provided that our translocation strategy can be implemented as a matter of utmost urgency. The crisis facing the northern white rhino could not be more serious. This is our last chance to save it.

Surely we have to use every means at our disposal to prevent one of our most charismatic creatures from sliding inexorably into extinction?

Conservation/Legislative Update

Column Coordinators: *Becky Richendollar, North Carolina Zoo*
and *Greg McKinney, Philadelphia PA*

*This month's column was put together by
column co-coordinator Becky Richendollar*



Two grizzly bears killed at Glacier National Park - A 17-year-old female grizzly bear (*Ursus arctos*) in Glacier National Park was killed because of her increasing interactions with human visitors. The bear, called the Old Man Lake female due to her location in the park, was first caught and fitted with a radio collar in 2004. During the next two years park officials tracked her location and twice had to intervene using noise and dogs to persuade the animal to steer clear of campsites. The bear then wasn't seen for two years. In 2009, unfortunately, she appeared again – this time with two young cubs in tow. It quickly became apparent to park officials that any fear she may have had of humans was completely diminished.



Grizzly Bear (*Ursus arctos*)
(Photo: animaltrail.com)

For the safety of the animals and the human visitors, the decision was made to tranquilize all three animals. Unfortunately, no zoo was interested in a 17-year-old female grizzly bear so the decision had already been made to euthanize the mother bear.

Park officials camped out with tranquilizer guns and rifles and set up a family trap to catch all three bears at once. Unfortunately, the bears surprised park employees and went towards the nearby campground. Officials fired on the mother bear with the rifles, feeling as though they had no choice because of her proximity to the campground. The two cubs were shot with tranquilizer darts and were scheduled to be moved to the Bronx Zoo. In an unfortunate twist, the male cub did not survive the darting. Multiple park rangers tried CPR on the bear but were unsuccessful at reviving him. His sister is still scheduled to make the trek to the Bronx Zoo.

Officials were saddened over the activities and hope to use the situation to continue educating visitors to the park about why it is wrong to approach the bears and habituate them to humans. *Source: Missoulain, August 19, 2009*

White Rhino Poaching Increases - In early September, officials from South Africa National Parks (SANParks) announced that seven white rhinos (*Ceratotherium simum*) had been killed during August. This adds to the total for the year, bringing the number to 33 white rhinos that have been killed in Kruger National Park since the start of 2009. According to park officials, these seven rhino were found dead with their horns hacked out. Six people have been arrested and five illegal firearms seized in connection with this crime.

According to SANParks more white rhinos have been killed already this year than in the eight previous years. From 2000-2007 a total of 120 white rhinos were killed throughout South Africa. From January of 2008 to July of 2009 a total of 134 rhinos were victims of poachers.

These latest poachings come right after an announcement by park officials that they will be increasing rangers in the area. SANParks chief executive David Mabunda said "Poachers must beware, because we will seek them out, we will find them and they will be dealt with. This is a war that we plan on winning".

Statistics show that this is not a problem unique to Kruger and that white rhino poachings are up in all of South Africa's parks. *Source: iol.com, September 2, 2009*

Follow “Chestnut” Through the Sea - Track a young sea turtle released from the North Carolina Aquarium at Pine Knoll Shores as it roams the sea. “Chestnut”, a young loggerhead turtle (*Caretta caretta*), was fitted with a transmitter similar to a GPS that will mark the turtle’s location every time it surfaces.



Loggerhead Turtle (*Caretta caretta*)

(Photo: Marco Ghilano/Fondazione Cetacea)

With this new technology comes accessibility as the public is now able to track “Chestnuts” movements. Researchers hope to learn more about the behavior of young sea turtles as well as information about the turtles that nest on local beaches.

To see Chestnut, go to www.seaturtle.org and click on the tracking link. Find North Carolina Aquarium at Pine Knoll Shores Sea Turtle Awareness Program and click on the name “Chestnut.”

The three year old turtle was brought to the aquarium in 2006 as a stressed rescue hatchling. Researchers hope that data gained from its tracking device will show how sea turtles that receive human assistance do or do not fare better in the wild.

Source: zandavisitor.com September 2, 2009

Zoo Tiger Brutally Killed by Poachers - Poachers broke in to the Jambi Zoo in Indonesia in late August and killed a female tiger. The Sumatran tiger (*Panthera tigris*), named Sheila, was a part of a conservation program run by the Zoological Society of London (ZSL) to save the Sumatran tiger. Using meat to drug the animal, the poachers skinned the tiger and then removed the majority of her body parts, presumably to be sold on the black market for Chinese medicines.

“This tragic incident highlights the need for improved law enforcement at a local level. It is shocking that this tiger, who has contributed to tiger conservation via her role in training young Indonesian wildlife biologists and vets, should fuel the trade in wildlife parts which threatens her kind with extinction,” said tiger conservation manager for ZSL Sarah Christie.

Indonesian authorities fear that this could be the latest tool in the poachers’ belt—using somewhat “tame” and captive tigers in zoos. The price for animal bones and skins on the black market is increasing as the animals themselves become more rare. Source: mongabay.com, August 25, 2009

In a related story....

Illegal trade in Sumatran tigers, body parts remains widespread - The illegal trade in

Sumatran tigers (*Panthera tigris sumatraensis*) and their body parts in Jambi province has gone on unabated and has caused the tiger population to dwindle year by year. “If this is tolerated, tigers will be extinct in Jambi within the next few years,” Jambi province Natural Resources Conservation Center (BKSDA) head Didy Wurjanto said.

Didy said the number of tigers in the province stood at around 50 a few years ago and they lived in four national parks and production forests in the province. “The number has dropped to only 20 this year,” he said.



Sumatran tiger cubs Nakal, Satu and Isha at the Melbourne Zoo. (Photo: Floyd C. Inglis)

He said his office had processed 10 cases of illegal trading in Sumatran tigers this year that led to the prosecution of poachers and traders dealing in tiger parts. Four tiger pelt traders were caught red-handed conducting transactions in August and November in Jambi city this year.

“The largest number of traders are found in Jambi city. They usually wait there for the tigers to be handed over by professional hunters operating in the national parks and production forests,” said Didy.

If authorities failed to stop them, the tiger pelts would be brought to Jakarta to be sold to clients for exorbitant prices. At the local level, the price of a tiger pelt could be Rp 35 million (about US\$3,500) but once it has reached Jakarta it could sell for up to Rp 75 million. A stuffed tiger could fetch Rp 100 million. The fangs and the reproductive organs of a tiger are sold separately. A fang could go for Rp 20 million each, while a tiger penis could fetch the same.

Didy did not deny that the illegal trade in Sumatran tigers involved a tight network. Poachers usually seek information from the local residents living around the forests. The poachers have obviously lured residents into providing them with information about the location of tigers with cash, willing to offer Rp 500,000 for fresh tiger tracks, indicating a tiger is still in the location. “This certainly tempts residents,” he said.

If the poachers are able to catch a tiger, it will be taken to a trader in Jambi city who will sort out the tiger based on orders, such as for fangs, penises, pelts or in stuffed form. Buyers come from various circles, mainly those who regard tigers as a symbol of strength, charisma and power. “Such a myth should be dismissed, because it could encourage rampant poaching,” said Didy.

He added the Jambi BKSDA was equipped with a Rapid Response Forest Ranger unit (SPORC) which is authorized to arrest and investigate those involved in the illegal trade in endangered animal species.

The SPORC has handed over suspects’ case files to prosecutors to serve as a deterrent and prevent them from repeating their crimes. In late August, police arrested a suspect, Syamsuddin, for the stealing and brutal killing of a Sumatran tiger from its zoo enclosure in Jambi. (*Source: The Jakarta Post 9/9/09*)

PETA and the San Diego Zoo – Strange Bedfellows - After spending years criticizing the San Diego Zoo’s Elephant program, PETA and in Defense of Animals is now in support of at least one move made by the zoo. In late August the San Diego Zoo accepted two Asian elephants (*Elaphas maximus*) that had been rescued from a circus in Texas. Tina and Jewel, both in their mid-40s, were taken to the new Elephant Odyssey facility where San Diego vets will be able to nurse the two cows back to health. The two were removed earlier this year from the care of circus operator Willie Davenport of Leggett, Texas. The USDA removed the animals using the Animal Welfare Act which allows the government to remove an animal living in a situation with “unrelieved suffering.”

While animal rights groups applaud the rescue of these two animals, they are not likely to forget their long history with zoos. PETA spokeswoman RaeLeann Smith said, “We’re very glad to see members of the zoo community actually rescuing animals. We’d like to see more zoos rescuing instead of capturing from the wild or breeding.”

After quarantine, Jewel and Tina may join the other elephants living in the Elephant Odyssey. If that doesn’t work out, the zoo will place the two elephants with another zoo. So far, their prognosis looks good. Veterinarian Tracy Clippinger said, “They are smart, nice animals. I’m encouraged at one week in how they are doing and how they are getting used to things.” *Source: San Diego Union Tribune, September 3, 2009*

Female Chimp Fosters Puma Cub - Holding a bottle to a puma cub's mouth, Anjana the chimp displays all the behaviours of a caring mother nourishing her vulnerable offspring. The odd pairing is nothing unusual to staff at Anjana's zoo in South Carolina, where the five-year-old ape is renowned for her affinity with little big cats.



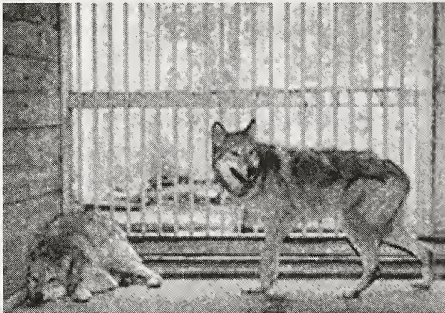
Chimpanzee Ajana with puma cub Sierra
(Photo: *Starcasm.net*)

Zookeepers at The Institute of Greatly Endangered and Rare Species (T.I.G.E.R.) Preserve in Myrtle Beach, FL say Anjana and her latest charge, a nine-week-old orphan named Sierra, have become inseparable. Orphaned chimp Anjana lives with the resident feline curator at T.I.G.E.R.S, who taught the ape how to care for the feline cub. *Source: news.ninemsn.com.au 9/1/09*

First Cloned Wolf Found Dead - One of the world's first two cloned wolves has died from an apparent infection, a professor who produced the clones almost four years ago said Tuesday.

Snuwolf (Seoul National University wolf) was found dead on August 26 at Seoul Zoo, Professor Shin Nam-Shik of the university has reported. Snuwolf lived three years and 10 months, far less than the average lifespan of wild wolves which is 10-12 years..

Snuwolf apparently died of an infection and had no other health problems, Shin said. "But we can't say anything for certain until we complete the analysis of autopsy results."



AFP/File – File photo shows cloned female wolves, named Snuwolf (from the Seoul National University wolf) and Snuwolffy. (Photo: AFP)

He denied the death might be linked to a faulty cloning technique. "Sudden deaths among dogs and wild animals always happen. This death must not be blown out of proportion," Shin stressed. However, there is some question whether cloned animals may suffer inexplicably from diseases or disorders that ordinary animals recover from. There have not been sufficient studies conducted to determine whether or not this is indeed the case.

Shin is a member of the team from the university led by Professor Lee Byung-Chun which created the world's first cloned dogs in early 2005. The team also cloned two female wolves, Snuwolf and Snuwolffy, which were born in October 2005. Shin said Snuwolffy is alive and healthy at the zoo. Lee's team had

reportedly been working on mating Snuwolf and Snuwolffy with male wolves "Daehan" and "Min-guk" who were cloned a year after the females.

Shin's team's success was clouded as it was achieved under the stewardship of now-disgraced cloning expert Hwang Woo-Suk. But a probe by an independent panel confirmed the canine cloning was genuine. (*Source: Agence France Presse 8/31/09 and The Korean Times Nation 9/1/09*)

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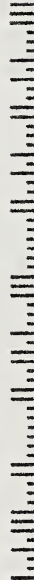
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